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NOVEMBER 1983

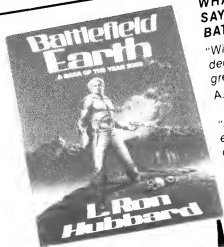


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NOVEMBER 1983

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by Hugo Gernsback

Cover by **George Barr**  
for "Eszterhazy and the Autogondola-Invention"

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# OPINION

by Robert Silverberg

Somewhat suddenly I found myself appointed the editor of the annual Nebula Award anthology of the Science Fiction Writers of America a few weeks ago — which meant I had to choose a selection of the runners-up for this year's award to be included in the book with the winning stories. Since I've been too busy writing science fiction in the year gone by to have had much time for reading it, it was necessary for me to undertake a crash course in the current Nebula nominees in order to make my pick of the stories. (I had read only three of the stories previously, and one of those was the one I had written myself.)

As I did my Nebula-nominee homework, I had the surprising experience of discovering, as though for the first time, a datum about as startling as the announcement that California is west of New Jersey or that Thomas Jefferson was President before Ronald Reagan:

*There isn't a whole lot of science in science fiction.*

What surprises me about this discovery of mine is that it's a criticism that readers have leveled at SF with great regularity ever since Hugo Gernsback started *Amazing Stories* in 1926, and that it's a conclusion I myself came to long ago. But somehow it struck me with fresh

force this month as I read through, one after another, the stories that the members of the Science Fiction Writers of America (professional writers of the stuff, remember!) consider to be worth calling the best science fiction of the year, A.D. 1982.

I'm not talking, by the way, of the so-called "hard" science of such SF practitioners as Hal Clement and Poul Anderson. (Which is termed "hard" not because such sciences as physics and chemistry are generally thought to be tougher on the brain than, say sociology or semantics, but rather because writers of the Clement-Anderson school believe in providing a solid theoretical underpinning for their fictional speculations by working out the specific gravity and orbital period and such of any planet they might happen to invent, and to stick rigorously to the laws of science as they are presently understood, or, in deviating from them, to do so in a plausible and carefully defended way.) Hard SF is a wondrous thing when it's done right, but even its most loyal adherents will swiftly agree that it's not the *only* legitimate species of science fiction.

No, what I'm talking about is the absence from much modern-day science fiction of any sort of speculative thought whatever. The

ideal science fiction story, I have always believed (and in the main I've tried to honor this principle in my own work) is one that is built around the exploration of the consequences of some extraordinary departure from the generally accepted realities of contemporary life. That is, *what if* lobsters evolved into intelligent beings in the future, or *what if* it became possible to travel backward in time, or *what if* we could restore the dead to life if it were done quickly after death: given that bizarre and fantastic assumption, *what would be likely to happen?* I don't regard any of those premises as particularly likely ever to become reality, but there's a certain minimal scientific rationalization that can be made for each of them, even time travel; the essence of science fiction for me lies in the exploration of those consequences. The careful exploration of an unlikely idea is, to me, a playful but legitimate variation of the true scientific method.

A look at this year's Nebula nominees brings some frowns. Among the novels the situation is less problematical: the winner, Michael Bishop's *No Enemy but Time*, ought to fit anybody's definition of science fiction, and the same with Aldiss's runner-up *Heliconia Spring*. Asimov's *Foundation's Edge* and Heinlein's *Friday* have no significant speculative content that I could notice, but in minor details they certainly attempted, as the work of those two writers invariably does, to provide serious thought about the detail-fabric of the future. Gene Wolfe's *Sword of the Lictor*, though, seems very far from the purist notion of SF I've proposed, and Philip K. Dick's *The Transmigration of Timothy Archer* is a brilliant


mainstream novel with only the tiniest tinge of any speculative idea in it.

But many of the shorter works, splendid as they are as works of fiction, show vast shortcomings as *science fiction* by my way of looking at things. One, Barry Malzberg's superb "Corridors," is a story about what it is to be a science-fiction writer; call it meta-science-fiction, if you will, but SF it ain't. Fritz Leiber's "Horrible Imaginings" is a horror story, all spooks and shivers. John Kessel's award-winning "Another Orphan" is a straight literary fantasy ("What if a contemporary Chicagoan suddenly found himself living inside *Moby Dick*?"). Connie Willis's award-winning "A Letter from the Clearys" offers for our contemplation the astonishing notion that a nuclear war will greatly upset the workings of our society, which was a valid theme for science fiction when Heinlein did it in 1941, or even when everybody you can name was doing it in 1946, but — sorry, Connie — not these days. Greg Bear's "Petra" is manic surreal fantasy. Howard Waldrop's "God's Hooks" is clever quasi-historical fiction with the merest fantastic gimmick deep underneath everything else.

It isn't all like that, of course. Bruce Sterling's "Swarm" is a brilliantly inventive tour de force of imaginative biology, William Gibson's "Burning Chrome" digs deep into (among many other things) some implications of modern computer technology, Joanna Russ's magnificent "Souls" drops an extraterrestrial being down into medieval Europe with marvelously stimulating results. And my own "The Pope of the Chimps" examines

the philosophical complications that might grow out of a scientific experiment in developing chimpanzee intelligence over many generations.

But those are exceptions. It seemed to me that most of the stories on the ballot paid only minimal heed to the old-fashioned notion that a science-fiction story ought to be built around a scientific idea (in the broadest sense of "scientific") and to arrive at some novel and intellectually exciting conclusion in the course of examining that idea, while at the same time managing to meet a reader's expectations in the matter of such things as plot, character development, and literary style.

It isn't an easy trick to pull off, God knows. If writers don't want to tackle a challenge like that every time out, I certainly don't blame them. I'm not quarreling with Fritz Leiber for writing a horror story or Barry Malzberg for writing a story *about* science fiction, either. My area of concern is something else again: if the members of SFWA — the people who produce the stuff, remember — really feel, as their nominations and votes would suggest, that the stories on this year's Nebula ballot represent what *science fiction* at its finest ought to be, then this field may be in even more trouble than it already seems to be in. 

## COMING NEXT ISSUE

The enigmatic Heechee are encountered at last in the third novel of Frederik Pohl's *Gateway* series. Phyllis Eisenstein presents a tale of feudal rivalry and malign sorcery. Robert Bloch reminisces about the science-fiction scene of the 1930s in his "Fantastic Adventures with *Amazing*."

Also in inventory are fine stories by Keith Roberts, Gardner Dozois, Alan Dean Foster, Wayne Wightman, Somtow Sucharitkul, Darrell Schweitzer, Robert Young, Ian Watson, Rand B. Lee, and many others! Watch for the Jack Gaughan cover. And make 1984 an amazing year.

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# RECOGNITION OF THE TIGERS

for Jorge Luis Borges

rising out of the looking glass  
framed with gold cupids  
I saw your **Dreamtigers** passing, passing  
like a pounce of cats

while my incurable addiction bent  
like arthritic bones in backfire  
of the muse who hypnotized my thoughts  
revolving in red light of the azalea bushes  
& she smiled with a tentative sparkle  
gliding in her long, green gown  
& we met in blue light  
on the shift key that struck like a wave  
locked in the touch system of a typewriter  
moving toward ZAZ & TFG  
along the left margin of compulsion  
underlining the silence of stones  
& I fell off the space bar  
& crashed into the looking glass  
giggling with Alice  
& our eyes grew larger in moonlight  
& we pledged our dreams  
in some Wonderland of bubbles & blossoms  
& the muse slammed me back  
to the blank page of beginnings  
for better or worse  
keeping watch on my life

while the tigers in their usual way  
passed by that summer  
hunting for prey that quivers & cries  
along the Hudson River.

— Ruth Lisa Schechter

# BOOK REVIEWS

by Frank Catalano

We live in a high-tech world.

Okay, so you've heard that before. But it's one thing hearing about it through your Sony Walkman, between bits of music transmitted via a relay on an RCA Satcom in geosynchronous orbit, broadcast from a centrally-located programming facility; and fully another coming face to face with it.

Which, as I write this, is exactly what I'm doing.

This is the first of what I expect will be a long series of columns, short stories, novels, and the like written on my home computer . . . something even I thought I wouldn't be getting my hands on for several more months, if not years. It's not that I dislike computers — on the contrary, I belonged to the first generations raised knowing that they'd be operating them. Instead, it came down to taking what is essentially a science-fiction technology and putting it to use in my own life. That, in a way, frightens me, and if it can take SF writers aback to use word processors and computers (some won't even use an electric typewriter), imagine how the average person on the street would view such a change in his/her household.

The point here is that people may be willing to write about dramatic changes in their lives, or even to read

about them, but rarely actually accept those changes without taking some pause.

And in these high-tech times, it can be all a science-fiction writer can handle to use the new technologies and to start thinking ahead to what type of second- and third-generation technologies they will spawn.

No wonder there are so many complaints these days about the lack of good, accurate, imaginative and extrapolative hard SF. Dealing with the SF in reality can be enough of a problem these days.

## Against Infinity

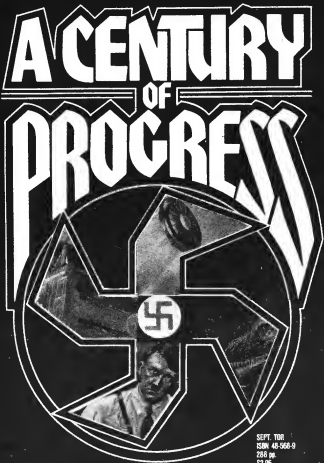
by Gregory Benford

Timescape: \$14.95 (cloth)

I bring all this up because of what appears to be the difficult state of writing an entertaining as well as scientifically imaginative hard SF novel. And one of the few who appears to be doing it well is Gregory Benford.

Benford had a hell of a task in writing *Against Infinity*, one I don't think anyone envies him in the literary sense — following up an award-winning novel that even spawned a namesake line of books. That novel, of course, was *Timescape*. In *Timescape*, Benford describes a failing near-future Earth with an easy reality that makes for entertaining hard SF.

TWO POSSIBLE FUTURES BATTLE FOR EXISTENCE IN OUR PRESENT.  
IF THE WRONG SIDE WINS, THE THIRD REICH WILL NEVER DIE...



"Fred Saberhagen has always been one  
of the best writers in the business."

—Stephen R. Donaldson,

author of

THE ONE TREE



**TOR BOOKS**

WE'RE PART OF THE FUTURE

The same kind of easy reality appears in *Against Infinity*, even though it takes the reader millions of miles and hundreds of years into Man's future. This time, the subject is Jupiter's moon Ganymede, where Man is trying to gain a foothold. Terraforming is working, but very slowly; and it will take generations for genetically-engineered critters that Man has put there to do the job and make the planet habitable for humans.

Into all of this comes 13-year-old Manuel Lopez, a first-generation native of Sidon Settlement on Ganymede. The Settlement is just barely eking out an existence while competing with asteroid colonies and the strict, socialist government on Earth, which appears to have lost the concept of what it means to be on the frontier. And then there are the alien artifacts, discovered on Jupiter's moons years ago. They're truly alien in that they aren't understood, or perhaps aren't even understandable, by humans.

Foremost among the artifacts is one that appears to be the oldest of them. The colonists on Ganymede have nicknamed it the Aleph — and it alone of the artifacts still functions, if you can call apparent mindless terrorizing of the Ganymede "country-side" functioning. The settlers, on missions to weed the genetically-engineered terraforming creatures of malfunctioning animals, go on frequent side trips to hunt the huge artifact which tunnels and crosses Ganymede, seemingly at random. And the one who finally wants to meet up with the Aleph is Manuel.

*Against Infinity* is very much a Rite of Passage story for Manuel, and a good one at that, interweaving the strange-yet-familiar characteristics of

a world Man is trying to make over to suit him with the definite alienness of the Aleph and the definite familiarity of a boy growing up. And it works. It's a completely different situation than *Timescape*, but in terms of scope and impact, it's a worthy successor. Those who read the serialization in *Amazing* should know that the book is substantially longer.

### **The Unforsaken Hiero**

by Sterling E. Lanier

Del Rey: \$11.95 (cloth)

Where *Against Infinity* struck me with the strong characterization of its lead player, *The Unforsaken Hiero* struck me just as hard by the apparent lack of it.

*The Unforsaken Hiero* continues the tale of Per Hiero Desteen, priest and trained killer of the Metz Republic, a country comprising part of what used to be Canada. In the first book, *Hiero's Journey*, Lanier introduced Desteen and the Republic's search for a computer which was needed to help fight the Unclean, a Dark Brotherhood which used technology for domination.

This background is quickly recapped at the beginning. Now, it seems, the Unclean are even more of a menace — and Hiero has to work with the Republic and some rather odd allies to defeat them once and for all.

Now, I didn't read *Hiero's Journey* when it first came out a decade ago, and still haven't read it. It's to Lanier's credit that its sequel holds up very well on its own. It's also to his credit that he takes the conflict between the Unclean and the Metz Republic to a decisive point, and that he also brings the doings of uniquely mutant animal intelligences into the story.

But the characters are straight from a comic book, right down to their dialogue and internal thought — you know, the dastardly villains, the noble hero, the brave and gorgeous wife. It's irritating to read that kind of thing when it's put against a background of North America some 5,000 years after a holocaust . . . it's like pink flamingos on the lawn at Winchester Cathedral.

Whatever. It is a pretty decent quest novel, save for that. And don't expect it to be the last Hiero novel: the ending is straightforward about Hiero having not finished his work . . . and apparently that means Lanier hasn't, either.

### **For Love of Mother-Not**

by Alan Dean Foster

Del Rey: \$2.95 (paper)

*For Love of Mother-Not* is a prequel to the several volumes Foster has written involving the empath Flinx and the mini-dragon Pip. In this one, we find out early on that Flinx was an orphan sold at government auction to sweet-but-crusty Mother Mastiff, a street dealer on a not-so-advanced planet. Flinx himself is an orphan of science, so to speak. He's part of an illegal scientific society's experiments in genetic engineering. When that society tries to get his cooperation by kidnapping Mother Mastiff, Flinx tries to find her and to find out about himself.

I suppose this book would be fascinating to devoted fans of the Flinx-Pip Commonwealth adventures, but I don't think I belong in that category. In the first place, I had a hard time believing the premise that an otherwise enlightened government body like the Commonwealth would ban outright all genetic experimentation. The "villainous" scientists seem

rather pathetic, actually, and I found myself sympathizing with them in several instances. In addition, some of the background is of the dreaded "As You Well Know" style, where one character explains background to the other in large hard-to-swallow lumps, solely for the reader's benefit since the characters obviously already know all of this. If that's the case, why are they telling it to each other?

*For Love of Mother-Not* is not one of Foster's best efforts. It reads like the introduction of an unfinished novel, since the really fascinating implications are at the end of the book. But then, those apparently have already been covered in the other Commonwealth novels.

### **The War Against The Chtorr Volume 1: A Matter for Men**

by David Gerrold

Timescape: \$15.95 (cloth)

Aliens invade Earth. Pretty standard stuff, right?

Not in David Gerrold's latest book. It's not quite as simple to invade ol' Terra as it used to be.

First of all, you have to be able to sneak up on the populace . . . best done in such a way that they don't even know they're being invaded. And tie it in to a series of disasters that seem to be natural.

In this case, the Earth is one in a relatively near future some years after a limited nuclear exchange nicknamed the Apocalypse resulted in the Moscow Treaties, treaties that left the United States without the right to have its own global armed presence. This was followed by some inexplicable plagues that wiped out most of the Earth's population . . . and by rumors of the invading alien Chtorr, rumors some saw as a way to rally the remaining populace of the U.S.

against a mythical foe to get things back together.

But Jim McCarthy, a scientist who was drafted into the new Teamwork Army, finds out the Chtorr aren't a myth. He also finds the Chtorr are invading . . . but doing so by slowly introducing the organisms native to Chtorr to soften up Earth for the Chtorrans.

It's a stridently written novel. Describing it as Heinleinesque would be pretty close to the mark, since it's got a lot of action and science and clearly defined situations of right and wrong. It also moves very quickly for its nearly 400 pages, and the idea of an ecological invasion is very well carried off.

However, the novel is also very episodic in nature — you get a great feel for the individual scenes, but the entire picture of how it all fits together is a bit choppy. By the time I got to the end of it, I was impressed by its flash and punch; and then I wondered what I'd read. It appears to be the story of McCarthy's Rite of Passage and the growing Chtorran invasion, but comes across more like a "Let's examine future U.S. political philosophy" tour, complete with lots of neat lectures by characters in the know, albeit they're delivered in entertaining style.

The first volume of *The War Against The Chtorr* just misses the mark of being a really good book, and I'm not sure exactly why. Perhaps it needs more Gerrold and less Heinlein. But three more books in this set are promised, and I am looking forward to the next one.

### **Dream Makers Volume II**

by Charles Platt

Berkley: \$6.95 (trade)

*Dream Makers Volume II* is sub-

titled "The Uncommon Men and Women Who Write Science Fiction," and it couldn't be more on the mark. Because while all these people may be involved with SF, they are as diverse personalities as their fiction is different from each other's.

Platt presents some excellent prose profiles of 28 SF writers, editors, and writers who have only dabbled in SF in some peripheral way (such as Alvin Toffler, author of *Future Shock*). The profiles include not just the text portions of conversations Platt had with the writers and editors, but also Platt's own observations — and biases — flatly stated up front. Brief and very descriptive, they look at the people who write and edit what you and I read, and occasionally review.

Best of all about the profiles is that you get the feeling that you really know the person Platt has talked with. I'm not sure if all the interviews measure up the same way, but comparing the ones written about people I know against the people themselves, they're right on. It's a nice thing, seeing the writers and editors as human beings, and not as some godlike beings who deign to entertain and enlighten us with prose. It's even kind of refreshing to realize that some of the writers are downright weird.

I'd be hard-pressed to pick out the best, but the really illuminating ones included the interviews with Jerry Pournelle, Andre Norton, James Tip-tree, Jr., Keith Laumer, L. Ron Hubbard (no, not in person — that's explained), Harry Harrison, Christopher Priest . . . what the heck. They're all good. If you're a reader who wants to know more about the writers you read, or simply a writer or editor who wants to know more about your craft or colleagues, I recommend this book highly.

**Code of the Lifemaker**

by James P. Hogan

Del Rey, \$13.95 (hardcover)

This book is thoroughly fascinating and amusing. In the prologue, Hogan provides a straightfaced and amusingly logical account of how a group of manufacturing robots, abandoned by their alien masters, develop individuality, sex, and a primitive society including warfare.

In the main part of the novel, this unusual group is contacted by a human space mission. The major human character is a successful and cynical professional "psychic," who is along for political rather than scientific reasons. A rival group has sent a magician along to keep an eye on him and debunk any psychic demonstrations, but when it is revealed that the mission's scientific work is merely a cover for the true purpose of exploiting the robots, the two join forces in opposition. There follows intrigue, culminating in the psychic inadvertently becoming the robots' Messiah.

The technical material is well done, including the details of how psychics operate, and the book contains a half-dozen or more vivid characters. Consider it for a Hugo next year.

**Lyonesse**

by Jack Vance

Berkley, \$6.95 (paperback)

I found this one disappointing, primarily because I'm an admirer of Vance's exotic backgrounds and his strange & original depictions of humanity's basic drives. Here the setting is typical for soft fantasy: a group

of islands (no longer in existence, of course) somewhere in what is now the Celtic Sea. (The map in the book shows parts of England, Ireland, and France, but they're distorted enough that exact location of the islands is impossible.)

Plot is the intrigues of petty kings, which is typical enough of Vance, but the characters are eminently forgettable, and the heroine is insipid. I was set to blast the cover artist for showing such a saccharine and stupid maid, but it's actually a very good representation. The plot itself is well done, and it's a superior effort when compared to the average swords-and-sorcery novel. But it's a long way from Vance's best effort.

**Ratha's Creature**

by Clare Bell

Atheneum, \$11.95 (hardcover)

The background of an intelligent race of big cats on the Earth of twenty-five million years ago stretches my credulity past the breaking point. But the characters and plot woven into this background are excellent.

The "Named" are very much cats with a tribal social structure and herder culture: they're not furry humans. Their herds are being raided by their "Un-Named" relatives, who are savages with a mixture of intelligence and normal cat instincts; the intelligent "Un-Named" seem in the minority.

Ratha is an equivalent of a female teenager, and the plot concerns her attempts to get the Named to use her

unorthodox ideas of defense. In the course of the book she matures, saves the tribe (naturally), and learns that you can't always have all you want.

It's an excellent juvenile book and a must for cat-lovers.

### **Tea With The Black Dragon**

by R. A. MacAvoy

Bantam, \$2.75 (paperback)

Basically this is a suspense plot, with kidnappings, computer theft, attempted murder, etc. The only fantasy element is that the hero is over a thousand years old and a former dragon. (He looks human, a point which is explained in the conclusion.)

The characters, both the dragon and the heroine, are marvelous. She's a former concert violinist who is now a fiddler with a folk group (to the despair of her daughter, who feels that status and prestige should outweigh fun and games). The plot is merely a device to let the reader get to know the characters, and they're well worth knowing; the hero in particular is one of the most charming superhumans I've ever encountered.

Pauline Ellison did an equally marvelous job on the cover; I'd love to have the original of that one. The book may be hard to find by the time this review appears, but it's worth looking for.

### **The Encyclopedia of Science Fiction and Fantasy: Vol. 3**

Compiled by Donald H. Tuck

Advent:Publishers, \$25.00  
(hardcover)

The final volume of one of the major science-fiction reference works. Previous volumes were composed of bio-bibliographies of SF and fantasy authors, editors, artists, etc. This is the miscellaneous volume and includes lists of all the science-fiction

and fantasy magazines, complete to listing the lead story in each issue, a list of paperbacks arranged in sections by author, publisher, and title, a compendium of known pseudonyms, a list of series and connected stories, and a final general coverage which includes films, TV, selected fanzines, foreign SF, etc. Advent is known for its accuracy, so the science-fiction coverage can be relied on. Coverage of peripheral areas may not be as good: Juanita discovered several errors in the "Star Trek" plot synopses. But even there it should be generally reliable. Cutoff date for the material presented is 1968.

Okay, fellas; now when are you going to publish the update, bringing the material up to 1980 or so?

### **Othergates 1983**

edited by Millea Kenin

Unique Graphics, 1025 55th Street,  
Oakland CA 94608,  
\$7.00 (paperback)

This is for all you would-be writers and artists in the readership. This 200-page book, the fourth annual edition, lists all the science-fiction markets, or at least all that responded to the editor's questionnaire. Professional, semi-pro, and fanzines are all represented, with addresses, publishing frequency, types of material used, and rates of payment if any. There are cross-references according to circulation size, pay rates, and type of material. It's far more comprehensive than anything else I've seen, and should go on your reference shelf next to the writer's manuals, since it shows what you can do with the stuff after it's written.

### **Compounded Interests**

by Mack Reynolds

Nesfa Press, \$15.00 (hardcover)

Another of Nesfa's books to honor the Boskone convention's Guest of Honor. This collection includes ten stories originally published from 1951 to 1967, one new story, a short verse, and an introduction by the author. A good share of the stories are humorous, all of them entertaining. Reynolds has been largely ignored by the critics, but tends to rank high in readers' polls.

The best item in the book is "Depression or Bust," a nicely funny illustration of the adage, "The only thing we have to fear is fear itself." Other stories include a deal with the Devil, the ultimate Indian claim, a Sherlock Holmes pastiche, alien contact, and others. The title story concerns the possibilities of making a fortune via time travel; the kicker is what that fortune might be used for. Wendy Pini has a nice dust-jacket.

### **Nebula Maker & Four Encounters**

by Olaf Stapledon  
Dodd, Mead, \$14.95 (hardcover),  
\$7.95 (paperback)

As I'm not much of a Stapledon fan, I was surprised to learn from Arthur C. Clarke's introduction that his career ran from about World War I to World War II. I would have guessed from the style that he came somewhere in between the Franco-Prussian and Boer Wars: it's a very ponderous, 19th-century type of writing.

"Nebula Maker" is apparently an early version of *Star Maker*, which I didn't like, either. The idea of intelligent interstellar nebulae is interesting and original enough, but the analogy of their history to that of humanity is simplistic and occasionally dead wrong, not to mention dull as ditchwater.

"Four Encounters" is much more interesting, though not fantasy at all. In it, Stapledon explores the philosophy of, in turn, a Christian, a scientist, a mystic, and a revolutionary, and finds them all lacking. (The idea that a Christian can also be a scientist, or that a mystic can also be a revolutionary, is ignored for the purpose of the debate.) In my assumed and erroneous time-frame for Stapledon, these might have been considered innovative and original; since they were actually written in the 1940s, they're a bit dated but still interesting, and still at least partially valid.

So, roughly half the book is well worth reading. Tell your librarian to get a copy.

### **Ancient Lights**

by Davis Grubb  
Viking, \$10.95 (paperback)

This 540-page book came out in 1982, but nobody seems to have paid much attention to it, and it's worthy of attention. The plot concerns the new Messiah, Sweeley Leech, and his unorthodox — to put it mildly — methods of salvation; it's narrated by his nymphomaniac and garrulous daughter Fifi; and it takes place mostly in 1992.

The theme seems to be that God is Love, reduced to the lowest common denominator. Actually the sex is overdone; it got boring before I was a quarter of the way into the book, which I don't think was the author's intent.

However, the use of the language is marvelous; this is a book to be quoted at people. Some of the expressions, inventions, and puns cry out to be shared:

Describing murals of dancers:  
"They gave me a sense of Degas vu."

"A fat bulldog, wheezing and strumming on his catarrh . . ."

Describing Irish fairies: "... angels with Deirdre faces."

Night scene: "The black Ohio River shone and shimmered and wound like a dark, sullen torrent of Coca-Cola sewerage into the rotting teeth of little children . . ."

All of the above are samples from the first quarter of the book; there are lots more, all the way through; and there's no room to quote all the passages I marked. The book is a bawdy extravaganza, with unbelievable characters, improbable events, and brilliant dialog and descriptions. I had to buy my own copy, and it was well worth the money.

#### **Whispers IV**

edited by Stuart David Schiff  
Doubleday, \$11.95 (hardcover)

This collection of horror stories is almost entirely of original fiction, rather than reprints from the magazine. I'm not a good judge of horror stories because they don't horrify me, but most of these actually have plots and some of them have interesting characters as well. One or two even have conclusions that surprised me, though most were pretty predictable to the veteran reader.

Karl Edward Wagner, Russell Kirk, and David Drake all have above-average fiction here, well worth your while. The other stories, good enough but not outstanding, are by Freff, Ramsey Campbell, Tanith Lee, Frances Garfield, Gerald W. Page, William F. Nolan, Charles L. Grant, Lawrence Treat, Frank Bel-

knap Long, Stephen Kleinhen, Hugh B. Cave, Richard Christian Matheson, and Michael Shea. This anthology has a nice mixture of new writers and veterans.

#### **Patterns of the Fantastic**

edited by Donald M. Hassler  
Starmont, \$5.95 (paperback)

Subtitled "Academic Programming at Chicon IV." For those of you who fell asleep during the presentations, this includes a selected list of the papers that were read. The use of language and the utopian genre are the most popular subjects, though they also cover women writers and characters, science-fiction theater, some individual writers, and one article on fannish convention-goers. Most of the book is competent if stodgy; none of it is particularly engrossing to me, but if you like that sort of thing it's a nice souvenir of the convention.

#### **The Best of Chicon IV**

Off Centaur Publications,  
P.O. Box 424, El Cerrito CA 94530,  
\$8.00 (tape)

This 60-minute cassette recording of excerpts from the filksing is a pleasanter souvenir of Chicon IV for me, but then I'm a noted lowbrow. It includes sixteen songs by fourteen different singers; Leslie Fish and Julia Ecklar are each represented twice. Some, like Frank Hayes's "12 Years At A Worldcon" are excessively ingroup; most are understandable to anyone with an interest in science fiction.



# OBSERVATORY

by Darrell Schweitzer

Why isn't science fiction more international? While translations were common in the science-fiction magazines in Hugo Gernsback's day, in recent years it has been possible to get the impression that, aside from a handful of Britons and Australians, the only noteworthy foreign science-fiction writers are two or three Russians and a Pole. We need only to read some of the classics of foreign SF, such as Zamyatin's *We* (1924) or Capek's *The War with the Newts* (1937) or such an anthology as Donald Wollheim's *The Best from the Rest of the World* to realize that this isn't so.

But very few foreign writers are to be found in American science-fiction magazines. Why?

One partial explanation is that some magazines have foreign editions, and therefore can't use work which has been previously published elsewhere. *Amazing* doesn't. We buy only first North American serial rights.

The main reason is much simpler: the stories are not being submitted.

Translation is of course a problem. All stories must be in English. This isn't mere American chauvinism, but because a story that has to be translated is more expensive to acquire, and, if the editor doesn't even know (until she reads the translation) whether the story is any good, the

expense is unjustified. Also, while she may be able to read German, French, and Spanish perfectly, this won't do her any good if the story is in Swedish.

Distance and postage are more of a nuisance than a problem. We recommend that overseas writers send clear photocopies which may be disposed of if not bought, and enclose just enough International Reply Coupons for an airmail reply. The reply may take longer to reach you, but otherwise your manuscript will be treated like any other.

Some foreign writers, even from English-speaking countries, seem to believe that American editors are not interested in their work, and will reject stories lacking sufficient American content. The very reverse is true. If a story has a foreign setting, foreign characters, or even just a different way of looking at things, it will seem fresh and new, even if it might be commonplace to the author's countrymen. Sometimes American writers attempt stories set abroad, or featuring non-American characters. They may or may not know what they're talking about. The non-American writer does, and if he can also tell a good story, he has a positive advantage.

We definitely want to see more stories from non-American writers.



# DISCUSSIONS

by The Readers

Dear Mr. Scithers:

I'd be curious to know just how aware Gregory Benford was that he was recasting Faulkner's *The Bear* in *Against Infinity*. Recasting it effectively and cleverly, needless to say; but the parallels are hard to miss. Manuel is Ike, Old Matt is Sam Fathers, Eagle is Lion, the Aleph is Old Ben, etc., etc. My guess is that at some point — not necessarily from the outset — he was perfectly aware of all this; but could we ask him?

Yours,

Judith Moffett  
Assistant Professor  
Department of English  
University of Pennsylvania

Dear George:

Judith Moffett is correct, as far as she goes. I grew up a hundred miles from Faulkner's home, and set out to write an SF novel that drew on what I thought of as the basic hunting story I'd heard as a boy. I grew up among farmers for whom baying hounds and the pursuit of deer and fox and even the occasional bear was *the* recreation.

The point of carrying over such experience is that I suspect humans have only a few organizing principles, and one as effective as hunting will undoubtedly arise again. I began the book, desiring to create a sequel to

my own *Jupiter Project*; and indeed Matt Bohles of that novel becomes the old man of *Against Infinity*. The more I thought about Ganymede 200 years from now, the more it seemed that the emotional context of hunting was what I needed to tell the tale.

So I started off in what I knew as a boy to be the southern story-telling voice — long sentences, rolling rhythms, personal asides, etc. Many literary critics regard this as Faulkner's voice, but he got it from the people around him. (And of course changed it some, too; so did I.) As I consciously realized the convergence of ideas and methods, I reread *The Bear*, and yes, there's a similarity — in part.

However, the analogy fails in the second half of the novel, which of course wasn't serialized in *Amazing*. There I consciously draw back from the frontier, and have a look at some ideas far from the Faulknerian forest — Heilbroner's theories about the evolution of socialism, for one.

And through it all I stuck close to scientific facts, trying to envision how Ganymede would be terraformed by advanced technology, and what kind of men and women would do the dog work. My family was and is mostly laborers and farmers, and that gives you a different perspective on society than

the customary middle-class intellectual view of most sf writers.

As for the implications of *why* the men and boys of *Against Infinity* ceaselessly tracked down a lumbering alien artifact — a careful reading of the last few chapters, and especially the last page, may be of help. By that time we're far from the southern context, of course. Or maybe not.

Best,

Gregory Benford  
UC - Irvine CA

*It's all a matter of relationship — whether the other writer is a literary father or brother. Or uncle, or maybe even first cousin once removed. . . .*  
— George H. Scithers

Dear Mr. Scithers:

Enclosed is \$16 for a two-year renewal of my subscription. Also, this seems as good a time as any to express my thoughts on *Amazing's* change. (I know I'm a bit late, but procrastination is one of my many foibles.)

After reading SF/Fantasy lightly for two or three years, I started reading Ms. Mavor's *Amazing*. Almost immediately (Jan '81), I subscribed and became a great fan of the magazine. *Amazing* developed my tastes for SF and turned me into an avid SF/Fantasy reader. (The occasional mystery/horror helps to balance my readings.)

After my first subscription ran out, I renewed. The first issue of my second run with *Amazing* arrived (the Sep '82 ish); it announced the change of control. Immediate shock and panic set in: the magazine that introduced me to magazine SF would undergo the metamorphosis of a new editor, staff, and publisher. By this time, I had already started reading

other SF magazines. I had also learned *Amazing* was not the leader as it always will be to me. I decided to wait and see.

I waited, and was pleasantly surprised. I enjoyed (on the whole) all of the issues printed, but it wasn't as good.

I like the "artistic" old type style. The November cover was fine, but the rest weren't quite as good as the old ones. And (I know this will sound picky) the bindings (due to the way I store back issues, these are prominent) lack a bit of the old ones' color. (Also the color of the other SF magazines I read.)

Pardon me if this letters sounds critical, or ignorant of facts in magazine SF. But hey, I'm just a high school sophomore who's only been reading SF/Fantasy for four years or so.

John Provo  
1414 Stafford Avenue  
Fredericksburg VA 22401

*This letter doesn't sound at all ignorant to us; after all, you are an all-important part of our readership. You're right about the bindings (or spines) being less colorful than they were; that we can easily fix, and will.*

*As far as *Amazing* being the leader in the field — if it is to you, then it is to us. We think we're delivering on our slogan: **First in Science Fiction** — again!*

— George H. Scithers

Hallowed Editors,

My eyes are red, my fingers ache, my hair lies about in great torn-out locks. The dictionary has vanished in the thick blue clouds of cigarette smoke obscuring my room: my ashtray runneth over. I dare not go swimming for fear that writer's

cramp will be my undoing. My shining ideas shrivel horribly as soon as they encounter the daemons Style, Characterization, and Plot.

Enough! My ego can take no more. I humbly request a copy of *Constructing Scientifiction & Fantasy*. It is unfair that I have not the courage to submit my stories for fear of Sturgeon's Law.

Perhaps with enough blood, sweat and tears (and a format for manuscript submission breathing down my neck) I might yet see my stories in \*\*\*PRINT\*\*\* and my bank account rise above two digits.

It sure would be nice to be able to afford to date my girlfriend again.

Yours very truly,

Mark Soula  
c/o J.&J. Owen  
R.R. #2  
Emo, Ontario, Canada

*Our booklet — which over a thousand readers have requested — contains some useful do's and don't's. But we don't think it will promptly set your mind at ease. What you describe sounds like an argument with your b. s. detector. (Hemingway thought every writer needed one.) Only once you make friends with the li'l devil will you be past your growing pains.*

— George H. Scithers

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## CARTOON



William Rotsler

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## CARTOON

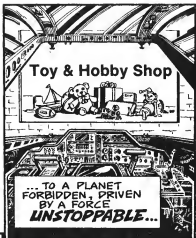


Alexis Gilliland

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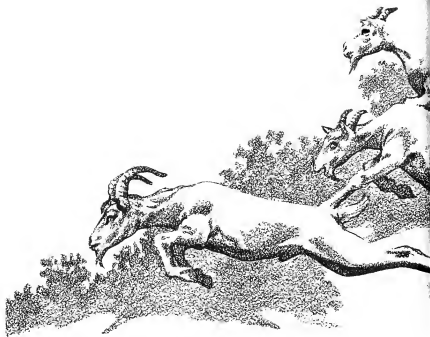
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**ESZTERHAZY AND THE  
AUTOGONDOLA-INVENTION**

**by Avram Davidson**

**art: George Barr**

G. Barr - 1983



*The following is a fantasy; but it is also true science fiction: it is about change. Its country is not to be found on any map. It has been replaced, at best, by a Federal People's Republic; and how is that a change for the better? You would be wrong to find its characters merely laughable. We know what history is going to overtake them and their children: a good reason for setting a tale in the not terribly distant past.*

*Tales of an older and magisterial Eszterhazy appeared in magazines (including Fantastic) a decade back and were collected as The Enquiries of Doctor Eszterhazy (Warner, 1975) — now, alas, out of print.*

The mist was thick and white and wet, and from every side came the sounds of trickling waters. Huge grey rocks loomed, showed their lichenous and glistening contours, fell behind to be succeeded by impossibly steep vistas where tufts of grass and twisted trees lured the stranger on, perhaps only (the stranger thought) to betray him into placing his foot on a narrow and slippery footing whence he would at once plunge into a gorge. From right behind him a voice spoke. "You all right, Lieutenant?" said the voice.

Captain Skimmelffenikk of the Royal and Imperial Scythian-Pannonian-Transbalkanian Excise swore a bit. "How can anybody be all right who tries to climb a saturated mountain in riding-boots?" he asked, next.

He could not see the sergeant, but he was certain that the sergeant shrugged. The sergeant said, "You ought to wear rope-soled sandals, like the rest of us. Ain't that right, Mommed?" The guide was up ahead and equally invisible; he was a Mountain Tartar and a Rural Constable. His reply was a grunt. That is, it sounded like a grunt to the lieutenant, but to the sergeant it had sounded like more. "Hey, that's a good idea," said he. "Stop a bit, sir. Now grab hold of that tree and hold it for balance. Now stick your leg backwards as if you was a mule and I was a-shoeing you. Right leg first." It was a mad-sounding instruction, but no madder than anything else on this tour of duty; and the officer had no one but himself to blame as it was his own misconduct (sleeping off his annual hangover in a public place) which had brought him here as punishment — and lucky he hadn't been cashiered! — here at the wild border of Hyperborea, one of the Confederated Hegemonies of the Empire. Holding onto the moist bole of a tree, he stuck his right leg backwards. The Royal and Imperial Excise was stern. But it was just. He, Lt. Skimmelffenikk, would sweat and suffer and do his damndest to do his duty, and eventually he would find himself in some civilized jurisdiction again . . . the Scythian Gothic

Lowlands, perhaps . . . or near the capital city of Avar-Ister, sometimes called "The Paris of the Balkans" (not often), in the broad plain of Pannonia.

Twisting his head, he looked to see what was being done. It would not have surprised him to see that his sergeant *was* actually preparing to hammer in an iron mule-shoe: not quite: the man produced an immense clasp-knife from which he now unclasped a something for which the tax-officer knew no name: somewhat like an awl and somewhat like a file and, on one edge, somewhat like a saw; and with this the man proceeded to score deep scratches in the soles of his superior's boots. "All right, sir, now the left leg if you please. Aw haw haw! well, better put the right one down first, aw haw haw! Sir."

But his superior was not looking at his feet. His superior was now looking straight in front of him at a slightly upward angle and at undoubtedly the most horrible sight he had ever seen in his life; he was looking at a face in the thicket and this face was diabolical. One side of it was bleach-white, one side of it was jet-black; it had yellow eyes and horns and a wreathed crown and a stinking beard, and it writhed its lips and it sneered as though the next moment it were about to pronounce some dreadful malediction. The exciseman uttered a thin wail and desperately tried to remember a prayer. At once the sergeant appeared alongside and lunged towards the frightful face, hand outstretched. The creature issued a fearful cry. Vanished. A commotion in the thicket. Only the wreathed crown remained. Or . . . was it really a wreath? Or merely a mass of flowering tendrils, adventitiously created as the creature had blundered through the bushes? A sudden small wind blew upon the wreath and it went tumbling out of sight. Meanwhile, in the wake of the commotion, there fell at the exciseman's feet some bits of earth and grass and some other objects, dark and about the size of chick-peas and smoking faintly in the cool misty air. "What *was* it?" he asked.

"Why sir, it was what the usual trouble here is about, a great big billy such as the Hypoes don't want to pay no tax upon it if they can help it . . . there being no tax on a nanny, as you know, sir."

The lieutenant had some faults in character. But he was able to confess them. "I was scared as Hell. I thought it was the Devil's face," he said, now.

And then he said, "Hark. What is that?" The two strained their ears. "Shepherds' pipes?" the officer asked. But his man shook his head, No. It was far too high for shepherds, he said. Nor did they pipe so.

Unlike most excisemen, who seldom read anything except second- or third-hand copies of the so-called "French papers," Skimmelffenikk was fond of the occasional issue of a monthly which sometimes carried articles about Natural History; he recalled one now about certain "honey-comb" rocks through which the winds sometimes blew with an effect like an

aeolian harp, and he now mentioned this to his sergeant.

Who said: "Huh. Well, it might have been." They moved on. Slowly. The rough-cut soles, now both scored, gripped better. "Them Hypoes," the sergeant was a Slovatchko and held the Hyperboreans in great contempt, "Well, it is said they sometimes do worship the Devil, ho, such fools! Don't they, Mommed? — Oh, not *you* o'course for all you're a Tartar and so a kissing-cousin to a Turk; but they others, don't they be sometimes risking their souls by worshipping the devil?"

The Mountain Tartar's reply may have been of a theological nature and then again it may not. Whatever it was he meant by saying it, he said it over and over again. "Watch step. Watch step. Watch step."

The Monarch was feeling . . . more to the point, was behaving . . . a bit grumpy. The Triune Monarchy had been "protecting" the pashalik of Little Byzantia on behalf of the Turks for a long generation, and now the seemingly interminable negotiations for its annexation to the Empire had taken a great lurch forward. The Sublime Porte had at last agreed to name a sum of money. But in return for this the Sultan was now insisting that the Emperor of Scythia-Pannonia-Transbalkania should henceforth be known as Emperor of *only* Scythia-Pannonia-Transbalkania. "*What?*" demanded Ignats Louis. "*What?* You mean that henceforth We've got to give up calling Ourselves 'Emperor de jure of New Rome and All Byzantium via Marriage by Proxy?' *What?*" His bulging eyes bulged more and his long nose seemed to grow longer; he gave the ends of his famous bifurcated beard two tremendous tugs. "WHAT?"

"Yes, Sire," said his Prime Minister. He had been saying so for a long time. Or, at any rate, it seemed a long time to him.

"Won't do it," said his Royal and Imperial master. "Won't think of it. Won't yield the point. Never. Never."

They were in the Privy Closet, a vast room jammed with curio cabinets and grand pianos covered with shawls and photographs and daguerrotypes and miniatures, plus the single harpsichord on which *Madame* played for the King-Emperor sixteen minutes twice a day. The Prime Minister was terrified that he might accidentally brush to the floor a sketch on ivory of the infant King of Rome or an early ambrotype of the late Queen of Naples; the Emperor, who could be a sly old fox when he wished, knew this and sometimes chose the Privy Closet whenever he particularly wanted to punish the P.M. by making him be brief. Standing as stiff and motionless as he could, the P.M. said that the point had been repeatedly yielded. "It has been yielded to the Senate of the Republic of Venice, to the Holy Roman Emperor, to the Austro-Hungarian Emperor, to the Vatican, and to the King of Greece. Among others."

Ignats Louis stared stubbornly at an ostrich egg in one of the cabinets. "See? Yield, Yield, Yield," he said. "We shall be little more than a mere

petty chieftain if this keeps up. Where has it not yet been yielded?" His first minister informed him that it had not yet been yielded to San Marino, Paraguay, and Mt. Athos. "Besides Turkey, of course." But this merely made the Old Man grumpier. *Mt. Athos!* The very last time the Proxy Claim had been invoked was in a dispute over the placing of a faldstool in the Pannonian Phalanastary at Mt. Athos . . . and had the monks been grateful? Not a bit! "Won't yield. Sorry We yielded to the King of Greece."

The P.M. silently sighed. Then he played his last card. (A threat of resignation was no card at all: each time he tried to play it the Monarch said, Good.) "I am authorized to inform Your Royal and Imperial Majesty that if Your Royal and Imperial Majesty will yield what is after all a mere pretense, and has been since 1381, the Sultan will bestow upon your Royal and Imperial Majesty the style and title of Despot of Ephesus, it being clearly understood that the title is purely of a despotic, I mean, of a titular character and no longer annually entitles its holder to a caravan of figs, a she-elephant, a eunuch barber-surgeon, or any other of its formal perquisites, including flaying and impalement. Though the Sultan might yield somewhat on the figs. . . ."

Silence. "Despot of Ephesus, hey."

"Yes, Sire."

More silence. Then: "The King of Greece won't like *that*, will he?"

This time the Premier did not conceal his sigh. "No, Sire."

"Heh heh. Take the wax out of *his* moustache! Hey? Where's the ticket?" The P.M. bent down just the slightest bit and indicated the parchment *assumpsit* which, red seals, ribbons, and all, had been in plain sight atop the writing-board on the Monarch's knee all the while; the Monarch dipped the short-trimmed quill into the purple ink, and scribbled **IL RI** (Ignats Louis, Rex, Emperor), called, "Page!" and stood up. The page presented the Premier with a sanding-box, the Premier sanded the signature, the Monarch said There went a thousand years of history down the goo-hole, the Premier said that it was merely 836 years and that the claim had always been dubious and (growing a trifle confused) that Little Byzantia was worth a mass.

"News to *me* the Turks say mass," observed the Monarch, pouncing. The P.M. winced: good. Still **IL RI** felt grumpy over his yielded point and phantom crown, little though he could imagine himself riding his Whitey horse into Yildiz Kiosk and proclaiming, "Stamboul is my washpot, over the Sweet Waters of Asia do I cast my shoe!" Well, he was entitled to do *something* to amuse himself, wasn't he? "Page," said he, "get over to that clever young fellow Engli who used to be Equerry here, Dr. Eszterhazy he calls himself now, and tell him that *Uncle Iggy* will see him tonight, usual time and place; exit the Despot of Ephesus, *shejss-drekka!*" Out he went.

The Prime Minister looked after him with opened mouth. Then he looked down at the page. The page looked back at him, his rosy face perfectly blank. "I will see Your Excellency to the door," said he. He saw His Excellency to the door, closed the door, then turned two cartwheels without disturbing a single bibelot, and then, as sober as before, he went to change from court dress into street clothes.

All was quiet in front of the hotel in the little square at the bottom of the Street of the Defeat of Bonaparte (commonly called Bonaparte Street). It was a rare alley, even, which had no name in Bella, capital of the Triune Monarchy, and this was a rare square, for it had no name at all; the hotel was a private hotel; its owner was one Schweitz, a Swiss, a man for whom the word "discreet" was inadequate. Engelbert Eszterhazy was then engaged in his preliminary studies for the degree of Doctor of Science (a process subsequently completed in Geneva); he had bought the house at Number 33, Turkling Street, and was slowly having it rebuilt according to his plans. For the present, Eszterhazy had rooms in Schweitz's hotel, and on a certain evening at an hour between early and late Eszterhazy had a few guests. By now it had been a while said of him that he was hopelessly eccentric but damnably clever and so best not crossed — on the sideboard tonight, for example, was a collation catered by Colewort — who was *he*? — he specialized in serving up snacks after the funerals of the upper sort of cartmen, that's who he was — on the sideboard tonight was cheese, head-cheese, fruit-cheese, fruit, two sorts of simple cake — if you wanted French kickshaws you could choose to hire a "French" caterer, and Eszterhazy did not choose to — beer, lemonade, and the standard Pannonian wine called bullblood.

A lull in the talk. Another guest entered. "Ah! Uncle Iggy! Welcome, welcome! You are just in time!" Eszterhazy announced, "Tonight we are perhaps going to summon up some familiar spirits. Perhaps some unfamiliar ones. Madame Dombrovski has been so very kind as to agree to see if entities not bound to earthly vessels will tonight be moved to employ her as a medium."

Madame Dombrovski asked that no one be so formal as to call her so. "Pliz, pliz," she begged, extending her ample arms (she had once been prima coloratura at the Zagreb Opera, where, it is well-known, no *thin* coloratura has ever appeared); "Pliz. Seemply Katinka Ivanovna. Een You-Rope, eat ease vary furmál, bot I hahv leaved een América, whar ease vary *enn-furmál*. Not so, Pard? she asked one of the guests; he nodded and, rising, was perhaps about to speak; but Katinka Ivanovna went on. "Pair-hops the spear-eats wheel feel moved, as Dr. Eszterhazy hos sayéd. Pair-hops nought. *Moderne* science hos provide us weeth the planchette, een América we call eat the wee-jee board. Sometimes the spear-eats appear and spik via the planchette. Bot sometimes they peak a

human beink. Who con say wheech? Whale, we most see." Beaming, she began to roll a cigarette. Touches of pink petticoat peeped here and there from above and under her frothy blue dress: Katinka Ivanovna was clearly not one of your fanatically neat dressers . . . perhaps that New World informality of which she spoke had accompanied her back to the Old World. Her abundant hair was red, that is, to state it a shade more precisely, henna. Perhaps it was naturally, if unusually, her own hair color; perhaps she had made the Pilgrimage to Mecca. Perhaps *not*.

Who else was present? Well, there was a rather small and pudgy man to whose clothes and shoes the word *glossy* could not have been applied, or, at any rate, not without grave risk of terminological inexactitude; perhaps just as well, for their gloss could not but have suffered under the rain of food fragments produced by his rapid eating — shall we say "guzzling"? yes we shall — at the sideboard: and all the while he rolled his prominent eyes around and around at the company. This was Professor Gronk, in whose scientific mind and work Dr. Eszterhazy was vastly interested. Professor Gronk had been well-known at one time for his having courageously piloted eleven balloons out of, and twelve balloons into, Paris during the Siege. Or, vice versa. The Prussians had referred to him, perhaps a bit sourly, as *der verfluchte blockaderunner*; "blockade-runner" is a word which does not translate easily into Prussian, but they had done the best they could and dropped the hyphen. Their new Colonial Service in Africa was reputed to be busily working on the many, many possibilities of the word *hottentotenpotentaten*. Subsequently Professor Gronk had applied himself to coal-tar derivatives in Montpellier and steam-plows in Silesia, alas sans spectacular success, but his past as *ballonist* was always with him and his head remained, so to speak, in the clouds.

Also present was a rather thin woman with rather beautiful eyes who was said to have been once the morganatic wife of a Grand Duke; be that as it may, it seemed to be the case that once a week a courier from the Russian Embassy did call upon her and, being shown that she was still in Bella and not, say, St. Petersburg, proffered a bow and an envelope which might very well contain an order upon a bank in Bella, and not, say, a copy of a poem by Pushkin. The lady was called Countess Zulk and was known to be interested in moral, ethical, and spiritual matters of all sorts.

Hovering over the Countess was a very striking figure indeed. This was the Yankee Far-vestern frontier poet, Washington Parthenopius "Pard" Powell, whose dark-red curls reached halfway down his back where they left a sort of Plimsoll line of perfumed bear-grease on the blue-flannel shirt which was his trademark. "The children of nature ma'am for so I denominate my beloved Redskin brethren who made me an adopted offspring under the name of Red Wolf Slayer when I lived amongst them as the one and only White Indian Scout and the husband of the great chief

Rainmaker's beloved daughter the princess Pretty Deer whose death broke his heart and hurt near broke mine too for pretty dear was she to me they have a mighty marvelous appreciation of the great spirit of nature ma'am and what you might call a extra-ordinary pre-science of things happening afore they really happen oh I recollect many sitch occasions ma'am yessurree." He wore buckskin trousers and moccasins embroidered with porcupine quills in several colors and he sometimes wore over his blue flannel shirt a vest of rawhide with long fringes and he wore a bowie knife and a broad-brimmed hat very much squashed and he smoked a calumet adorned with feathers and he was immensely popular right just then in Bella. Crowds gathered just to watch him stop and scan the city streets with one hand shielding his eyes and then wet one finger and hold it up to see which way the wind was blowing. Even now, Uncle Iggy was regarding him with fascination.

"Oh Mr. Powell —" the Countess began.

"Just 'Pard' ma'am eph yew please fur we ore all pardners in this great trade and commerce which is life ma'am."

The Countess sighed and said How True! Oh How True! and then asked. "In this life with the Redskins, Pard . . . was this before or after you were in Honduras with William Walker?"

Pard struck a pose. "It was after ma'am it was oh long after though may I not call you Sis instid of Countess fur ore we not all brothers and sisters in this one great human family I may why shore well Sis as I was sayun Sis well now what *was* I sayun ah yes now it come to me well as I declare in my *Fifth Epic Poem in Honor of William Walker the last Conkwistadoree*:

"Whenas a mere lad in Honduras with the great William Walker  
Who was a man of action and not much of a talker  
It is a vile canard to say he intended to extend slavery  
This is said in order to disparage his very manly bravery  
He set his calloused hand upon my boyish curly pate  
'Pard,' said he, 'love is much richer than hate.'  
These words I always recollect when my life is far from ease  
He spake them unto me as we galloped through the trees. . . ."

Pard stopped at this point and turned away and brushed his eyes with his forearm; the applause died away in a murmur of sympathy.

The murmur was interrupted by a harsh and argumentative voice, that of Baron Burgenblitz of Blitzenburg, widely known and widely feared and thoroughly disliked as "the worst-tempered backwoods noble in the Empire": even now he was on one of his too-frequent trips to the Capital to complain about some fancied infringement of feudal privilege, threatening as always that if he obtained no satisfaction he would retire to his castle-fortress and haul up its drawbridge and fire his antique but still-

functioning cannon upon any interlopers who came within gunshot — and meaning, *anybody*. “Yes yes, Mr. Wash Pard, we have often been informed that you were in Honduras, and we have often read that you were in Honduras, and you have just now told us that you were in Honduras; and so I have only one little small question to speak to you —”

“Speak without fear, my brother.”

“*Were you ever in Honduras?*”

The company froze. Would Pard’s hand reach for the scalping knife in its sheath at his belt? Would Pard’s hand reach for the tomahawk, set in the other end of the calumet? The company froze. Pard, however, was far from frozen; the look which he looked at Burgenblitz was far from freezing, it was burning hot. “Boss,” he demanded, “*say, was Dante ever in Hell?*” Burgenblitz’s mouth, already open to sneer, grew round. Then oval. All waited for him to say . . . whatever. He said nothing. Nothing at all. At least not for a very long time, and then upon some other subject. It was, later, felt that Washington Parthenopius “Pard” Powell had had the best of that scene.

But to give a complete roster of those present might be felt tedious; it may however be mentioned that among them was a man in later middle age dressed rather in the manner of a riverboat captain trying to disguise himself as a provincial seed-and-feed dealer. It was a fact that Ister riverboat captains *did*, often, try to disguise their trade: whatever might have been the case on the Mississippi, it was not looked upon as especially glamorous on the Ister; and those obviously of it were likely to be followed at a safe distance by small boys calling, “Here comes the onion-boat!” and similar indignity. The man was carefully dressed in a suit of best broadcloth obviously tailored by a middling-good provincial tailor of cut at least a generation out of date; his shirt was of staunch linen but it was visibly yellowed from lack of having been sun-bleached. Nearby rested just such a beaver hat as still found fashion and favor in, say, Poposhki-Georgiou. But the riverboat captain had forgotten to take off his deck-boots, as they were called. And he was still wearing the green-glassed spectacles, even though the yellow-red gaslight of Eszterhazy’s room did not glare as did the ripples on the river. So, when Eszterhazy merely waved a hand by way of introduction, saying, “And this is Uncle Iggy from Praz,” at the very most the others smiled gently. No one noticed that Uncle Iggy’s beard, brushed straight downwards, showed a tendency to part, as if it were customarily brushed bifurcated; anyway Uncle Iggy fairly often ran his hands down along it, unobtrusively pushing it together again. Nothing could have been done to shorten the nose, but, somehow, the glasses seemed to change it. And the pouched eyes were unobtrusive behind the green glasses. When someone asked, “And what do you do in Praz, ah, Uncle Iggy?” and the answer, “Well, I be in the feed-and-seed trade and also we do a good line in butter and

egg," was delivered in a rich Scythian-Slovatchko border accent — well, weren't most riverboat captains from the Scythian-Slovatchko border country? — no one recollected that his R. and I. Majesty was also from exactly there. And who knew how much the Court Gothic accent irked him damnably? For that matter, who called to mind the disguised, nocturnal roamings of Haroun Al-Rashid? Pseudo-bourgeois Uncle Iggy loading up on the black bread and head-cheese with strong mustard was perhaps suspicious, but the suspicion led up the wrong road. As Uncle Iggy meant it to.

At length, during one of those inexplicable pauses which occur in conversation, Katinka Ivanovna made a small sound sufficient to attract attention, tossed the end of her hand-rolled cigarette into the fire-place. Then she gave a frank stretch. Then, glittering with good humor, she said that perhaps it was time to see if the spirits might be ready to come. At her requests the gaslights were turned low and a silence was to be kept until such time as it might appear to the company that she, Katinka Ivanovna, had passed into a trance state: after which, questions might be asked her; she herself requested only that they should not be questions seeking for personal gain. To this rather broad hint that no tips on the bourse would be forthcoming, the company turned up its eyes in horror . . . and perhaps some slight disappointment. . . . She lounged back in her chair and closed her eyes. The inevitable squirming of people who have been told to be quiet died away, there was a very audible stomach-gurgle, a guffaw broken off. Then . . . nothing . . . and again nothing . . . then the breathing of Katinka Ivanovna grew heavier. Her eyes were now partly open. She was not sleeping. She was not awake. Then her host, by gesture, by raising his eyebrows, indicated that it might be question-time.

Countess Zulk sat up straight. "Our dear Katinka Ivanovna has told us many times of a Master Ascended who sometimes comes down from the Ghoolie Hills where his maha-ashram is; that is, in a non-material form he comes down, and if requested will impart messages of the deepest spiritual import. His name . . . his name is Maha Atma Chandra Gupta. I should like to enquire if Maha Atma Chandra Gupta would condescend to say something to us."

There was a long silence. Then, suddenly, the lips of Katinka Ivanovna opened, and a voice spoke through them. It was not her voice. It was the voice of a man and it spoke in English, a clipped British English, but with a trace of something else . . . perhaps a lilt like that of Welsh. "*There is too much coriander in this curry!*" the voice said, sharply. No one else spoke a word. After a while the voice spoke a word, several words, and this time it sounded very annoyed. "*Dal?*" it enquired. "*Do you call this dal? An untouchable would not touch it! It causes me the utmost damned astonishment that you should set this before me, purporting it to be dal!*" The voice ceased

abruptly. Silence. The gaslight hissed. Again the voice spoke. It said, "Excellent!" The tone of sarcasm was unmistakable. "Excellent! *Mango chutney without mango! Excellent!*"

For another long moment the gas-light susurrated without further sound accompanying it. Then, so suddenly that everyone started, Madame Dombrovski was on her feet, her palm pressed to her bosom. "La!" she sang. "*Fa so laaa . . .*" In another moment, wide awake now, she burst into hearty laughter, her golden inlays a-gleam. "Pliz," she begged, "pliz tall me, deed a spear-eat spick?"

Sudden embarrassment. Eszterhazy coughed. "The Maha Atma Chandra Gupta —"

"Ah, that great soul! Two hawndred yirs he is stayed een he's maha ashram e'en the Ghoolie Heels communing veeth the avatars! *Amrita*, a spear-ritual nectar, they breeng he'm; udder vise only vonse a yir solid food he takèd: *dal* veeth curry, a spoon fool. And mango chawtney, half a spoon fool. — Vhat he sayèd?"

The company looked at each other, looked at Katinka Ivanovna, looked at Eszterhazy. Who again coughed. "Evidently the Great Soul spoke in metaphors which we, with our gross perceptions, were really not quite able to interpret. . . ."

Quite suddenly and with no word of warning — unless, indeed, a somewhat slurping sound caused by licking a blob of mustard off his knife could be so considered — Professor Gronk said, abruptly, "In regard to the Autogóndola-Invention on which I have been working for five years in order to present it to Scythia-Pannonia-Transbalkania, my dearly adopted Parentland," and there he stopped.

"My dear Professor," said Eszterhazy, smoothly taking the savant gently by an elbow and turning him around, "I perceive that you have not yet tried the very-yellow goat-cheese, although your opinion is one which I particularly value." Professor Gronk calmly reloaded his plate, plopped on some more mustard, and ate with a dreamy air.

"'Goat-cheese,' hah!" exclaimed Baron Burgenblitz. "The peasants in Hyperborea are cutting up about the goat-tax again, eh, and why? — why, the devil, or some other ancient influence, has gotten into their goat-herds and they don't want to have to pay twice . . . ah I wish those tax-collectors come parading through *my* barony, damn them, I'd get up into my castle-fortress, pull up my drawbridge and bombard the lot with my artillery, damme if I wouldn't!" And he gnashed his teeth and gazed all round about with bloodshot eyes and left little doubt that, given the opportunity, he would do just that. "A whiff of grape-shot, that's what they need! I'd goat-tax them, rrrrgggghhhh!"

But at this point Katinka Ivanovna with mellow voice suggested that they sit down at table and try to find what the planchette had to tell. The oui-ja board somewhat resembled an easel laid flat, on which had been

painted the letters of the alphabet and the first ten numbers, plus a few other signs. On it rested a sort of wooden trivet with casters. "Now," suggested Eszterhazy, "if several of us, perhaps three, will sit down and place the tips of the fingers lightly on top of the planchette so that no single one person will be able to move it without the two others being aware, it is said that the spirits may guide it to various letters and numbers . . . perhaps by this method spelling out a message. So. If Katinka Ivanovna would be kind enough? If Countess Zulk —? And . . . oh? What? I myself? Oh. Well, very well. Now! Pard, if you will kindly observe the letters which the planchette touches as it moves, and call them out? And if someone else will please use this pencil and paper to write them down? Ah! Uncle Iggy! Thank you very much! Shall we begin?"

The three of them sat around the small table with their fingers resting lightly on the light piece of wood. Once more: silence. Nothing moved but the gas-flame and its shadows. Then something else did. The planchette suddenly and very smoothly glided across the board towards the arch of letters. Then it glided back. Then . . .

The lateness of the hour had not prevented Professor Gronk from methodically continuing to graze his way along the sideboard, and the bottle-shaped bulges in his coat-pocket showed where anyway some of the otherwise undrunk beer, lemonade, and bullblood wine had gone. At length he paused. Gave a long, slow look up and down. All that remained was a half a pot of mustard. Dreamily, the Professor took up a small spoon and calmly consumed the contents of the pot. He stayed a moment, a long moment, looking into it. Then he gave a huge eructation. Then, the attention of his host and the one other remaining guest having been attracted, he said, "The aerolines."

"The aerolines?"

"The aerolines. For the Autogondola-Invention. I have just had an idea." And, doubtless thinking deeply of the idea, Professor Gronk glided away, still holding the mustard-spoon in one hand.

Uncle Iggy had looked up, but he did not speak until the inventor was gone. Then he asked, "This . . . invention . . . ?"

Eszterhazy pursed his lips. His moustache was grown thicker; now and then he was obliged to trim it. "It has . . . as an idea . . . some merits. Some . . . possibilities. Perhaps we shall live to see them realized."

Uncle Iggy said that perhaps they might live to see the moon mined for cheese. Then he picked up the paper on which he had written down the letters indicated by the planchette as it moved hither and fro upon the oui-ja board, and lightly smacked it with his free hand. It had been found necessary to eliminate a number of letters; this was perhaps usually the case; out of what was left, one or two statements had been extracted . . . no

one had cared to call them *messages*. Eszterhazy issued a slight sigh. "Ah yes, the spirits tonight seemed rather concerned with food. Still . . . I hope you were amused . . . ?"

Guest seemed to wrestle a moment with answer, head crooked earnestly to one side, lips moving before utterance was quite ready. Gas-light reflected on polished wood and brass and glass, made shifting shadows on flowered wall-paper.

"Diverted. Yes. I was amused . . . sometimes. . . . Always, though, I was diverted. And ah my God! how I need diversion. Ah it's not like in the old days, before the Big Union," when, of course, the Two Kingdoms and the Hegemonies had become the Empire; "in those days you could call the Turkish Gypsies or the Mountain Tsiganes into the Old Palace and you could sing and dance and stamp your feet and break wind," (though "break wind" he did not precisely say), "but nowadays, damn it, oh well. — Yes. Now, that American poet from the American Far-western Province, his loyalty to that Valke Villiams or whatever name, really a mere adventurer I suspects, but admirable loyalty and his half-wild costume so fascinating, even that beast Burgenblitz was taken with him by and by — hah! the Pard gave Burgen' a very good answer *I* thought! And why of course cut my foot off," (though "my foot" he did not precisely say), "if that Madame Dombrovski ain't a fine full figger of a woman!"

His face, which had lit up, now became somewhat troubled. "But, now, Engli, what d'you make of this here," and he held up the paper.

HOG-LARD HUNDRED DUCAT A HUNDREDWEIGHT, Eszterhazy read aloud. Such was the first message, if "message" really it was, of the spirits across the board. "Hmm, well, the lard-merchants at any rate should be happy."

"Uncle" raised eyebrows. "Oh, *should* they? If the lard alone costs a hundred ducks a hundredw'ight, how much d'you think the rest of the hog's going to cost?"

"Why . . . I had not thought."

Guest made a sound between groan and grunt. "No, I suppose not. Not yours to think about. *Mine* to think about. If hog-lard's so high, it follows that pork be high too; if pork be high, what of mutton, beef, chicking, what of oat, wheat, grain in general, what of spuds? What's the cause of it a-going to be? Drought? Blight? Pest? All? Oh sweet *caro mi Jesu*, not war I do pray?"

Host said that there might well be nothing in the planchette's communication at all, or if there were, it might refer perhaps to a century in the future when the value of monetary units would have progressively declined, "owing to the inevitable spread of systems of credit. . . ."

Uncle Iggy did not however feel that spirits had come to speak of the price of hog-lard a century hence. "No, it's for me own time, depend upon it. Some message to *me*. To warn about famine. At least. *What's to be*

done, Engelbert?"

Engelbert Eszterhazy let his chin sink upon his chest. Then he brought it up again. "I should see to it, subtly as possible, that the Agricultural Ministry set up or buy up or even long-term lease up very many *dry* places to store Indian corn and then other grain; these gradually to be stocked according to general market price."

His guest stood up. "What do you philosopher fellows call it? Ha, yes, 'a counsel of perfection,' well, it's something to think about and you be sure I am a-going to think about it. Political economy and much such fine phrases I gladly leave to others but when I hear of hog-lard at one hundred ducks a hundredw'ight, why, then I have to think about the Old Man and the Old Woman and the kids at the little old farm in the fields and what might happen to *them* if prices go high as that. — Engli! My thanks! Oh no you don't follow me out, neither. 'Night."

Rather soberly Engelbert Eszterhazy, Doctor of Philosophy, *aspirant* Doctor of Science, considered what had just been spoken. It was said that the great Cuvier could conceive of an entire species on the basis of a single bone; now here was Ignats Louis — always Eszterhazy had thought him a fine man but of never very much mind at all — conceiving of war, famine, pestilence, and death . . . and all on the basis of a single theoretical commodity price. It was remarkable. Whatever it meant. Or whatever it would some day mean.

The Minister of Law was closeted with the Minister of War. The latter, his ministry being the senior, spoke first. "Well, I see we have two reports before us. One is on the possible dangers arising out of a *démarche* on our borders on the part of Graustark and Ruritania, to occur shortly; sons of bitches, why don't they go bother the Bulgars?" The question being rhetorical, he proceeded without waiting for an answer, "And the other is the latest threat of the Baron Burgenblitz of Blitzenburg, etc., an Officer of the Imperial Jaegers, etc., etc.; son of a bitch, why doesn't *he* go bother the Bulgars?" In neither case did he say, precisely, "bother."

The Minister of Law shrugged. "But let us discuss him first, as I am sure that you have already a filed plan in case of invasion by Ruritania and Graustark, whereas we do not have a filed plan in regard to the Baron Burgenblitz. His latest threat is based on his alleged feudal right to refuse to allow one faggot of firewood to be taken from every cart thereof by way of way-tax."

The Minister of War swore frightfully and then very rapidly stuffed snuff up each nostril and sneezed behind his hand and wiped everything with a large and rather unmilitary-looking handkerchief. Then he asked, "And has he said right?"

The Minister of Law looked rather like a Talmudic scholar who, having just presented the most beautifully lucid argument showing how

in a certain instance Hillel was right and Shammai was wrong, has at length come to the point where he must needs present the fact that nevertheless in that instance Shammai was right and Hillel was wrong. "Well, in a way. Yes. Technically, if it were presented to the Court of Compurgation and Replevin, there is no doubt that the Court, if pushed into a corner, would sustain him. But, well, for one thing, the Crown has repeatedly offered to present to the Diet a Schedule whereby his and all other such rights would be bought out; and all the Parties have agreed to support it. But the cockchafer won't apply to *be* bought out. And as for forcing him to *sell* out, well, that presents problems, too. The Autarchian Parties would not support it, surrender of feudal privilege must be voluntary and gradual, they say. Just as the Socialists and Liberals will not support his going on and denying himself the duty of paying all the same taxes as others. Son of a *bitch*. Son of a bitch." The Minister of Law pulled at his very full mutton-chop whiskers. But no solution came out of them, pull as he would.

The Minister of War said that Socialist and Liberal leaders might publicly protest Burgenblitz's reactionary actions, but — he thumped the green table between them — perhaps privately they were glad of them. "When he ignored the toll-gates, claiming Special Privilege, who knows how many Conservatives became more liberal or how many Agrarian Smallholders began to think socialist? True, he did pay the tolls eventually, but he might refuse again whenever he feels like it. Same with cattle-tax, same with the church-tax, with his, 'The priest must have a pig?' says he; 'I'll give him the runt of the litter,' now that just promotes freethinking and infidelity — what century does he think he's living in? Keeps roaring and yelling that if he is bothered he'll retreat into his castle-fortress at Blitzenburg and haul up the drawbridge and fire on anyone who comes near him, *ho!* Wish they'd let *me* have a free hand, then! 'My castle is my home?' *what!* Just watch me with one battery of artillery reduce his home to rubble: **boom-boom! BOOM!** Eh?"

The Minister of Law sighed. "Yes, no doubt. But in this year of his Reign the Emperor does not *wish* to reduce a subject's home to rubble. Why doesn't Burgenblitz of Blitzenburg plant wheat and shoot birds like other country gentlemen?"

But the Minister of War had no other reply to this than furiously to stuff snuff up his nostrils as though each one were the touch-hole of an artillery-piece.

Dr. Engelbert Eszterhazy was certainly of the aristocracy, but so distant from its main branches that no one had expected anything more of him than that, so to speak, he ride a horse and shoot a firearm; he had not even been expected to tell the truth, although he did. He had performed his military service with honor and his palace duty with the same. H.

might henceforth do as he pleased, and although it had not been foreseen that he would be pleased to undertake a seemingly endless series of studies, nevertheless that is what he had been doing. "He'll get brain fever at this rate," it was said, but he did not get it; neither did he retire to some distant castle to fill its neighborhood with rumor and with terror as did Count Valad Drakulya; neither did he go to Paris and ride a white mare through the Bois and now and then dismount in order to milk her into a silver tassy from which he then sipped, as did Count Albert de Toulouse-Lautrec. He did not fight duels. He did not join hunting-battues in which thousands of game-birds or -animals were driven before the guns of the shooters . . . but these eccentric non-performances were eventually accepted. Often he had gone abroad, and though he had learned not only to accept the smiles which visited mention of his nation's name but to admit how much the smiles were justified . . . foreign ambassadors invited, for example, to an Imperial Review in honor of the grand opening of a sanitary sewer in Bella: one which turned out to be the first sanitary sewer in the Empire . . . nevertheless it was to his own nation that he always returned.

Incomparably less large and vast than the Russian Empire, incomparably less powerful than the German Empire, incomparably less sophisticated than the Austro-Hungarian Empire — still, Scythia-Pannonia-Transbalkania, its mere name a subject for risibility elsewhere, was *his* Empire, his native land. It may not have functioned very well? so much the more he was pleased that it functioned at all. Its Secret Police was a joke? so much the more he too would enjoy the joke; no one laughed at the Secret Polices in the other empires. Its many languages rivalled Babel or Pentecost? let them: at least here no schoolboy was flogged for praying in whatsoever minor mother tongue. One empire had already, fairly recently, gone from the political map of Europe; and although the name of Bonaparte still rang like a tocsin here and there, it was uncertain the Prince Imperial would himself ever ring it successfully.

Day by day others asked, how fared their country's wheat compared with Russian wheat, its butter with Danish butter, its timber with Carpathian timber, its tar with Baltic tar, its cloth with English cloth? Day by day the same spokes of the universal wheel flashed by: love, sorrow, terror, death, success, failure, hunger, joy, growth, decay, weakness, strength: the wheel turned and turned and turned: nothing stayed the same, no one bathed twice in the same flowing water for the water had flowed on and flowed away. *There is no star at the pole of the universe*, young Dr. Eszterhazy recollected the ancient astronomer; and if there was and had long been but blankness in the comparable area in his own country, then might there not be space and place for him? What he hoped for, others did not even think of; what others did not think, might he not think of?

And, after thinking, do?

As for fuel, if it were burnable, in Bella they burned it. Charcoal, firewood, peat from the bogs of Vloxford (though in Bella only the Vloxford folk burned it, perhaps because only they had the patience to wait for it to boil a pot), coke from the Great Central Gas Plant (It was not *very* great and there was, as a result, not very much coke; but every British firm and office preferred it. Others were suspicious: coke was *new*.), anthracite and bituminous coal . . . Everyone was agreed that anthracite burned better, cleaner, hotter — once it was burning — but there was the trouble of getting it to burn — and if it were necessary to dump it on a fire already burning with some other fuel, why, the feeling was general, why not simply go on using the other fuel . . . instead? There were and had long been not very far from Bella two mines producing a bituminous coal so soft as to be rather friable. One was still in the hands of the descendants of the mine-serfs, who operated as a sort of *de facto* cooperative; the soft coal hewed out easily enough and the pit was not deep enough to be dangerous, nor was there any new-fangled nonsense about a tippie, grading and sorting the lumps according to size: you either took it as the coalmen brought it, slid and scooped off the coal-carts into ox-hide sacks and thence into the coal-shed in the back by the alley-door . . . or you did without and used something besides soft coal . . . or . . . nowadays . . . perhaps you brought it from Brunk.

Originally the Brunk mine-and-delivery service had operated the same way as the other one did, but bit by bit Brunk Brothers had bought their fellow-miners out. There had been three Brunk Brothers; now there was one. For a quarter century, Brunk Brothers had concentrated on supplying the railroad. And Brunk Brothers still did. But Bruno Brunk had always had in mind that he would someday capture the market for the stoves and fireplaces of Bella, and long he studied it. What was the weakness of the other coaling company in regard to this market? — so he asked. The answer was not hard to find: the local soft coal was so soft that it tended to crumble, and it kept on crumbling; housewife and servant were always busy with broom and shovel sweeping up the little bits and pieces and the coal dust, and dumping it all on the fire. It made things, well, *dirty*. This did not bother the men who brought in the coal from the Old Pit, for things were dirty anyway if you worked in or near coal. “Feathers is cleaner,” was their common comment to complaints. Sometimes, referring to their product’s undeniable cheapness, they would say, “Burn gold.”

The first hint that something else might be an answer came when Bruno Brunk bought a bankrupt wood-yard where the canal came into the Little Ister. Sumps were dug. Vats and sluices were made. Folks hardly knew what was a-going on. So, suddenly, hoardings all around

town blossomed with posters advertising Brunk's Clean-Washed Coal. Wagons delivered it — not carts: *wagons*. It came in slabs of several sizes and each slab had, you see, here was the genius of it, had been *washed*. And each slab was wrapped in paper, cheap paper to be sure, but wrapped. And each slab (lumps were also sold but they were in paper *bags*), and each neatly-wrapped slab was tied with twine, cheap twine to be sure, but *tied*. One simply put a small bag of lump-coal on the grate and a slab of wrapped-coal a-top: then one lit the bag (having first, as instructed, nipped a small hole for air). By the time the bag-paper was burned away, the lumps were burning; by the time the slab-paper had burned away, the slab was burning. There was, to be sure, still soot; Brunk had not thought of everything. But still it was cleaner, oh yes it was cleaner, oh God it was cleaner!

. . . well, it did cost a bit more. . . .

The suppliers of the Old Pit coal watched their better-class business vanish, and they watched in dumb surprise. Then they scowled, ground their teeth, kicked their ponies, cursed, got drunk, beat their wives. Their wives, none of whom had ever heard that a voice ever soft and low was an excellent thing in women, beat them back. Presently and with police permission a petitional parade was seen marching through Bella, and it was composed of men whom much boiling and soaping and scrubbing had turned from their usual coal-black to a singular and singularly nasty reddish-grey: these were The Humble and Hardworking Loyal Laborers in the Pit of Coal, as their quasi-partnership was called. In effect, the petition petitioned that Government should Do Something; and what did Government Do? Government's reply boiled down to two words in a language not generally spoken by the local coal-workers, to wit, *Laissez-faire*.

Dr. Eszterhazy, in a general way, had been aware of all this, as Dr. Eszterhazy, in a general way, was aware of everything in Bella. Sometimes, he felt, he was perhaps too much aware; he had just escaped from an original (as it might be kindly to call him) who desired his patronage to perfect a process whereby clarified goose-grease might be used for lamp-oil. Eszterhazy somehow felt that this was a fuel for which the world was not yet prepared . . . generally speaking . . . but this did not mean that the process was yet without value: he had given the original in fact a note to the Semi-permanent Under-secretary of Natural Resources and Commerce, suggesting that that ministry should have tests conducted. At what temperature would clarified goose-grease freeze? At what, turn rancid? Should the freezing-point prove very low and the rancid-point very high, the product might be promoted to foreign ship-chandlers provisioning long sea-voyages. Not only might it light the lamps but, should supplies run out, it might feed the crews. It would be healthier than lard and tastier than salt-butter; perhaps more economical as well.

Bella might even become the anserine equivalent of the city quaintly called "Porkopolis," in the American province of Mid-vest.

... and should said ministry, *faute de mieux*, engage Doctor Eszterhazy himself to make those tests . . . well, nothing wrong with *that*, was there?

This being in his mind, he was perhaps only mildly surprised to see a girl herding geese down Lower Hunyadi Street. She wore the traditional blue gauze fichu of the goose-girls of Pannonia; the goose-girls of Pannonia formed an almost infinite source of folk-lore. Who had not, as a child, and perhaps as an adult, listened to the *Lament of the Poor Little Itty Bitty Goose-girl of Pannonia, Betrayed by A Nobly-born Stinkard*, and failed to shed tears? Who would not recall lying on the floor by the firelight one lowering winter afternoon whilst listening to old Tanta Rűkhellè, spectacles halfway down her nose, reading the story of the poor goose-girl of Pannonia frozen to death whilst faithfully tending her master's goose in a sudden snowstorm? What popular melodrama or even new-fangled operetta could fail to include at least one scene with a poor little goose-girl in it? It was with, therefore, totally benignant reflections that he watched this particular poor little goose-girl from (presumably) Pannonia marching down the street; she was, equally traditionally, bare-footed, and — with her blue gauze fichu and her lament — equally evocative; the effect was only slightly marred by the fact that she weighed about 300 pounds. Eszterhazy, and, doubtless, everyone else watching noted that her bare feet were quite black: and so, from halfway down their traditionally white bodies, were her geese. And after her came about five-and-thirty other such goose-girls, all of approximately the same description and proportions, also driving piebald geese and also lamenting; nor was this all.

Right behind *them* came marching a group of the downstream laundresses, creating rather an effect in their unexpectedly sooty shifts; and, as they marched, they did not merely lament: they banged upon their washboards. And they *yelled*.

*Loudly.*

He resumed his walk in a rather pensive mood.

What did Brunk say? Brunk preferred to say nothing. What did the Council and Corporation of the City of Bella say? Officially? Nothing. Unofficially? Unofficially they pointed out that it was, after all, Brunk's coal and Brunk's coalyard and Brunk's riverine rights and there was not a damned thing in the laws preventing Brunk from doing what he wanted to do with any of them. It even suggested (unofficially) that the downstream laundresses might choose to launder upstream; but even unofficially it did not suggest that the entire Kingdom of Pannonia, which also lay downstream, might also choose to move upstream. What did the newspapers say? Very little . . . *as yet* . . . The newspapers did, however, print an occasional "historical essay" indicative of the fact that (a) the

Emperor, besides being also King of Scythia, was also King of Pannonia . . . and, incidentally (b) did possess certain feudal powers as Warden of the Waters. Nobody out-and-out pointed out that if the Imperial Crown, as a Royal Crown, were suddenly to exercise its feudal (as distinct from its constitutional) powers, how this might strengthen the position of any feudal-minded nobleman intent upon exercising his own feudal powers.

Things were seldom simple, and this was clearly not one which was.

Meanwhile, *did* the middle-class housewives of Bella, the best customers of Brunk's Clean Washed Coal, patriotically boycott the product? Well, one . . . it *was*, after all, *clean* . . . it was, after all, not merely convenient, it was fashionable . . . other things were really not the consideration of Women . . . their own laundry was done at home with well-water . . . and what were the waters of Pannonia to them? . . . One fears that, *no*, they did *not* patriotically boycott the product.

The path of progress did not run smooth. Or even smoothly.

"Gracious sir," asked a man who stopped Dr. Eszterhazy on the street; a man in the traditional pink felt boots worn by Hyperborean elders on festal or formal occasions; "Gracious sir, you has the look of a educated and a influential noble: can you tell me where I should git to aks about the spiritual seductions of our he-goats Back Home?"

Used as he was to odd and unusual questions, this one did startle. So much that he instantly wished to learn more. "Uncle Johnus," said he — *Uncle* was merely common good usage in Hyperborea from a younger man to his elder, and half the men Back Home there were named *Johnus* — "Uncle Johnus, if you tell me more maybe I can tell you more, so let us sit down at the tavern table yonder and have fresh rolls and roasted pig-pizzle with a pipkin of raspberry wudky, and do you tell me about that; the cost," he said, smoothly, noting a suddenly-appearing furrow on the other's brow, "will be borne by me out of the revenues of my grandser's estates, which otherwise we gentry might too easily be tempted to spend on champagne wine and gypsy-girl-dancers. Come on over here, Uncle Johnus."

Came Uncle Johnus? Uncle Johnus came. "I can always tell a noble gent when I sees one," he said, contentedly. He skipped upon the rough stone street as though it had been made of velvet. "I take it, my lord YoungLord, that you has travelled amongst us Back Home for you known ezactly what we in the High Hyperborea likes for a high snack. . . ."

Eszterhazy, feigning a sudden grimness which he did not entirely feel, said, truthfully enough, "I am the great-great-grandson of Engelbert Slash-Turk, the Hero of Hyperborea, *through two lines of descent*."

Uncle Johnus attempted simultaneously to kiss the brow, cheeks, hand, knees, and feet of the descendant, etc., but was prevented, the descendant employing the magic formula, "*Don't spill the wudky*."



Having managed to avoid spilling the wudky anywhere but down his bearded throat and having eaten the first dish of rolls with as much delight and relish as if they had been petit-fours, Uncle Johnus began to tell the matter which had, by vote of his home hamlet, sent him to the Imperial Capital; for, said he, "I tried to learn some'at in Apollograd," provincial capital of the Hetmanate of Hyperborea, "but they laugh at me there, me lord YoungLord: they *laugh* at me!" Eszterhazy assured him, with perfect truth, that *he* would not laugh at him; thus assured, the man went on. Goats were very canny creatures, Uncle Johnus said . . . he-goats in particular. They could perfectly well remember that once upon a time in old pagan days they had been worshiped as gods ("They mammal was mommets, in them days," he put it). But since then generally speaking, being subjected for example along with other animals domestic to an annual aspersion by the priests in blessing, such holy water had druv such unholy ideas clear out of their heads. *Mostly*. However. Lately —

Here the waiter arrived with the bowls of roast pigs' pizzle; Uncle Johnus looked from this to Eszterhazy and from Eszterhazy back to the goodies. Eszterhazy helped himself and gestured that his guest should do so, too; conversation, it being assumed, could wait.

And wait it did. By and by Uncle Johnus licked his fingers and wiped his immense moustaches on some fresh roll pieces and ate them and sipped some more rasberry wudky and swallowed and began to speak again. Them goats, now. Lately, however, through the agency of those whom or that which Johnus was rather he not be asked to name, the he-goats had begun to waver in their allegiance to the new and true religion. "They now runs away from the herds, Slash-Turk. They has crowns and garlands a-put upon their heads as in olden days. And they dances — ah, YoungLord Slash-Turk, yes, to the sound of that evil music they dances! They prances! They like to run wild in that there frenzy! Sometimes they carries on till they be dead, or sometimes they dashes off cliffs. And it's a terror and a worry and a fright to us, Slash-Turk YoungLord, what if they be not a-coming down to serve the she-goats in the breeding-season? We shall have no goat-kids . . . no kid-skins . . . by and by, so, no more goats . . . no cheese . . . no milk . . . no meat . . . nor no leather. . . .

"And after that, sir: what then?"

The immense wax-lights in the Grand Chamber of the Privy Council were not needed at the moment, but custom required that they be lit, and so lit they were, and their immense wax tears seemed a silent accompaniment to the words being spoken. With an immense sigh, the Prince-President of the Privy Council said that their Intelligence Service was clearly not as keen as it ought to be. The Turks, partly because of British pressure, partly because of Russian pressure, partly because of Prussian

pressure, and partly because of no Turkish pressure at all — the Turks had recognized that it was just about moving-day in their two predominantly non-Turkish provinces of Western Wallachia and Neo-Macedonia. The Turks had recognized that they were to leave, and to leave soon. The expectation was that these two provinces would probably become autonomous nations.

"If this is what our non-keen Intelligence Service should have informed us but perhaps failed to," said a Privy Councillor, "we may as well cut it out of the Budget and subscribe to the Swedish or the Portuguese newspapers instead. You tell us in effect that applesauce is good with pork. True. We already know it. Applesauce."

The Prince-President raised from his stoop. Again the scarlet ribbon of the Great Order was a taut slash across his bosom. "So. Do you already know this? That our neighbors, those two rapacious, tough, absurdly small principalities of Ruritania and Graustark, have between them hatched a scheme to become extremely large at the expense of just about everyone else? Even now . . . now, I mean *now* . . . they are conducting secret manoeuvres in the Disputed Areas, where not so much as a sheep-warden or a Rural Constable patrols to prevent them, and if no immediate and tangible gesture intervenes within two days, it has been agreed between them thus: one will annex Western Wallachia and one will annex Neo-Macedonia: thus at one stroke we are to be presented with two newer, bigger, more swollen, more swaggering neighbors upon our eastern borders . . . likely at once to dispute even more than is already disputed . . . and this is a prospect which" — his voice arose over the cries of outrage and the groans of dismay — "a prospect which we never envisaged and for which we are absolutely not prepared . . ."

Someone demanded to know what the Turks were likely to do. "'Do'? They will protest and demand compensation and they will loot and slay some other Christian folk, one which has the misfortune to live on the Asian and not the European side of the Bosphorus —"

"The British?"

"They will make speeches in Parliament and cry, '*Hear, hear!*'"

The Austrians . . . Russians . . . Prussians . . . French? "*A fait accompli.*"

A silence.

An elderly Councillor asked, "Might not His Majesty, even as a temporary gesture, invoke the powers presumably latent in his Family's ancient title of 'Emperor de jure of New Rome and all Byzantium via Marriage by Proxy?'"

A murmur.

The Prime Minister cast a look of agony upon His Majesty, but His Majesty did not even look up at him, spoke without raising his bowed head. "His Majesty has just immediately recently, at the request of the

Turks in connection with the question of Little Byzantia, renounced that title. It has not yet been gazetted, but the *assumpsit* has been signed." And, having signed, Ignats Louis bore the burden, and deftly led the pack on another scent. Another moment they sat and wondered what the Turk would do about Little Byzantia *now* —

A younger Privy Councillor demanded to know, Why were they all just sitting there? Had they not a *Navy*? At this the Minister for Navy awoke with a start which alone reminded them that he had been there all along; the same Privy Councillor at once demanded to know, Had they not an *Army*? Arose the Minister for War. Grimly. Yes [he said], they had an Army. He refrained from telling them why they had not a larger Army [he said], nor would he refer to last year's decision to diminish the Army's share of the Budget [he said]. "The facts are, however, that we have not a very large Army, that our Army is deployed here and there and mostly not near the eastern border, and that the Annual General Militia Call-up had been postponed because the harvest was late and the Militia-men were needed to help bring it in at home. *Which they are now doing.*"

"For if not," interjected the Minister of Agriculture, "perhaps it will spoil, prices will soar, and maybe not enough to eat."

"Hog-lard at a hundred ducats a hundredw'ight," said His Majesty, not bothering to bother with Court Gothic. One great groan rang through the Great Chamber, and the senior socialist Privy Councillor, a notorious Freethinker, was observed to spit three times in the palm of his hand and then surreptitiously to knock on the wooden framework of his upholstered chair. Field Marshals and Ministers, Aristocrats or Political Leaders though they were, still, the facts of farm life lurked never far away from any of them. Asked a labor leader, "Oh sire! *That* high?"

Sire said merely, "It ain't mud that puts fat on the hogs, master. It's maize."

The leader of the Opposition asked, "'... within two days,' eh? And what is the very soonest that an effective body of troops could be moved to the eastern borders?"

Said the Minister of War: "Three days."

Meanwhile, Eszterhazy had not only found no answer to the Mystery of the Goats, he had not even found a way perhaps to finding an answer. By the time he returned from his walk he was still perplexed. He made a note of the question; then he turned to his work of the moment, a laboratory experiment he carried on at home as adjunct to the one which formed his current project at the Royal-Imperial Institute of Science. Some time passed: he was thus still engaged when a loud knock at the door, a loud voice, and a loud trampling of feet advised him that he had a guest. And which guest he had.

"Why, Doc," asked Pard Powell, "why or yew at home in thuh middle

a thee afternoon on sitch a beautiful day? And why not in thuh great outdoor, a-breathin in a thuh sweet soft air? Not ta be found, a course, in thuh middle a town, but shorely we kin rint a couple a ponies and go fur a leetle ride along the river and inter the trees! Why, when I was livin on the boundless prairies as thuh adoptid child a thuh Red Skin People, why my hort beat loud with joy whiniver I buh-held a wild aminal or heard a sweet-singin bird, now —" Simultaneous with Eszterhazy's suddenly becoming aware that two of the glass pieces of his experimental equipment were improperly connected, Pard Powell reached out and imper-turbably connected them; almost at once remarking, "I needn't tell you, Doctor, that silver and mercury are incompatible," with no trace of dialect or accent in his voice.

"No," said Eszterhazy. "No, you needn't." Their eyes met. "Nor need you tell me that it was from the Red Skin People that you learned the techniques of analytical chemistry, for I fear I would not believe you if you do." Pard half-turned, made narrow his eyelids. Of a sudden, a certain English word flashed into Eszterhazy's mind as though the very paragraph in the dictionary lay exposed before him. *Glau-cous*. 1. Of a pale yellow-green color. 2. Of a light blue-grey or bluish white color. 3. Having a frosty appearance. 4. . . . But never mind 4. It seemed to him that even as he looked, the pupil of the American's eye turned from pale yellow-green to light bluish-grey to bluish white to pale yellow-green again; and . . . always . . . frosty. It was damnably odd. It was uncanny.

Not changing his gaze, Pard said, "Well, no, Doctor, of course not. You see, not only was I once a student, and a good one, too, of the Academy of the State of New Jersey; but I later owned the best pharmacy in Secaucus. If only I could have been content to go on compounding calomel and jalap pills for constipated house-frows and brown mixture for their coughing kids and tincture of cardamom for their flatulent husbands, I might be not merely prosperous now, which I am not: I might be rich. But one day it got to be too much for me, and just then along came a drummer in pharmaceuticals and I sold out — lock, stock, barrel, mortar, and pestle. And I went out West. And that is how Washington Parthenopius Powell metamorphosed into Pard Powell. Oh, to be sure, I have put a lot of fancy stitches into the splendid cloth on the embroidery hoop of my life. Well, why not? But don't take it for granted that all the gorgeous touches are lies. They're not. — Well . . . Not all."

He gave his head a slight jerk, and all the mass of dark-red waving hair rose and fell. There was a flash from the glaucous eyes. He laid his hand upon his heart. "And as I puts it in my *Fifth Epic Poem in Honor of William Walker the Last Conkwistadoree*:

Thudding onward o'er the Plains of wide San Peedro Sula  
From whence the dusky Spanish Dons extracted mucho moola,

We brothe the air that freemen breath and all our cry was 'Freedom,'  
We relished it like champagne wine, or Dutchmen relish Edam —

"Whut say we go fur a ride, Doc?"

Eszterhazy burst into laughter. "By all means, yes let us go for a ride. Let me, first, put some things in order here." Not instantly remembering what the botanical specimens were which he picked up to dispose of, absentmindedly he gave them a sniff and was about to administer an exploratory, if cautious, lick, when Pard Powell cried aloud and dashed forward.

"Don't eat them things, Doc! They'll drive ya plumb loco! Them's jimson weed!"

Astonished, aghast, Eszterhazy gazed at the plants. "Why . . . these were, allegedly, woven into crowns to garland the heads of he-goats in Hyperborea. What do you —"

The Far-vestern Yankee frontier poet said he hoped to Helen his pal Doc Elmer Estherhasty didn't have him no goats there wherever. "Why looky thar if that ain't the very flower outa the devil's garden, *Datura stromonium*, or I'm a dirtbird!"

Lightning seemed to flash in the makeshift laboratory there in a small scullery-room at Schweitz's hotel. "Surely a relative of the deadly nightshade, a prime ingredient in witches' brew!"

Pard Powell pulled his long red-brown moustache. "Durn tootin! As well as *Hyoscyamus niger*, alias *henbane*; and — as you so closely perceive the nomenclaytcher — *Atropa belladonna*, or deadly nightshade. Anyone a them will make ya curdle your dander, make ya scamper and cavort and run ginerally *mad*. Or, as we so aptly puts it Out West, *Loco*! As well as which, it might well *kill* ya."

There was a sort of ringing in Eszterhazy's ears. He shook his head emphatically. "Is there any reason why *she*-goats should be exempt from the effects?"

"None that I kin think of . . . *she-chickens* ain't. *Hen-bane*. Git it?"

"Could the scent of the plants cause humans near it to think that they had heard a sound like music? Fifing? Or . . . piping?"

"Not that I — well, durn it, eph yew thenk that, time we got *outa* this stuffy ol' suite! Let's go for a ride!"

Somehow or other it happened that they made a few stops in the course of their ride. Professor Gronk was found deep in his plans at his workshop. Without looking up and as though the newcomers had been there all along, he said, "Straw would provide the heat for the ascendant aspects of the Autogóndola-Invention. But straw would not fuel the engine. Wood is insufficiently concentrated, and hence too heavy. Coal, the same. Coke is better, but still: too heavy. I have as yet no method of

drawing the flammable gases out of the atmosphere."

Scarcely pausing to consider that his question might be considered not serious and therefore resented, Dr. Eszterhazy asked, "What of clarified goose-grease?"

The Professor said that he had not been working with the problem of liquid fuel. "The engine is not set up for it. Then there is the problem of the integument. ["The . . . integument?"] Silk is unquestionably still the best. I have no silk. White absorbs too little heat, black absorbs too much heat, red alone will do. Silk. Red." He spoke as though speaking very simply to children. "Of each piece," he made measuring gestures, "such a size. Two hundred and sixty-four such a size pieces. The glue I have only to heat. The wicker I have already framed. The engine is ready. I require only a satisfactory fuel, hot and yet light. Also of red silk, two hundred and sixty-four pieces of such and such a size." He turned upon his two visitors a look of such combined melancholy and appeal that they felt obliged to repeat the measuring gestures until he was convinced they understood.

"Well, Purfessur, that certainly is a wonderful thing," said Pard Powell, slowly edging away. "I'll sure think about that. I'll sure be keepin my eye out for red silk. — Whut the Hell's the little guy talkin about, Elmer?" he asked, once they were outside again.

Outside, in the scarcely paved streets between the old wooden houses, children clapped and sang and danced. A food vendor chanted to them, "Delicate eating? Delicate eating? A nice portion of large beef-gut stuffed with chopped lung and rice, sauced with onion and garlic and red peppers in the Avar style? Two pennikks, only two pennikks, delicate eating?" But they did not pause for it. Eszterhazy assured his friend that it was an acquired taste. They cantered on. At the next corner they stopped in order for Pard to buy a bundle of the small flags of, of course, Scythia-Pannonia-Transbalkania, the sort which are flown, or, rather, waved, at parades. There was no parade due; but the vendor, a wizened cretin from the Friulian Alps, perhaps, did not know this. Nor — seeing that he was, after all, *selling* the flags — needed he care. "Be good souvenirs for back home. I'll give 'em to the Injuns. They already got pitchers a them pie-faced Presidents."

Farther along, and in a considerably better-housed neighborhood, if not one where you were likely to meet your maiden aunt or her pastor, a woman waved from a window and called out a greeting which they politely returned. The greeting was followed by an invitation which they politely declined. At the next window, another woman. Another greeting. Another invitation. And at the next window . . . And at the next . . . And . . .

"Dunno why they need any *light*," said Pard, who had already pushed his sombrero to a rakish angle. "Them red petticuts is bright enough."

They rode on a moment or so before the same thought occurred to them. They mentioned the name and the need of Professor Gronk. And . . . it is to be feared . . . they both burst out laughing. "Sure to be silk," Pard declared. Still . . . He began to sing:

"I ain't got no use for the women, the ladies and girls o' the town:  
They'll stick to a man when he's winnin', and step on his face  
when he's down. . . ."

By and by they found themselves fairly near the mouth of the Little Ister where it disembogued into the Ister proper, and whom should they see sitting on her invariable stool but that well-known character, the Frow Widow Wumple. Wumple ("God rest his soul") had been a master boatwright; his prows were famous: "dumpling-cutters" they were called; and his relict lived by renting out the ways. Right now no vessel was hauled up for repairs, scraping, caulking, painting . . . but who knew what rascal might care to try? . . . and then try getting away without paying! Therefore, as always, the Frow Widow Wumple on her stool. Conversation with her was always interesting, providing only that one had an infinite capacity for hearing the phrase, "Ah, they didn't have none o' them things when I was a gal!" — and Dr. Eszterhazy had. Today the list of things which they didn't have none of when the Widow Wumple was a girl included: store-boughten butter, paved roads, a disgusting French disease called *la grippe*, indoor plumbing, and some foreign food named sandwich . . . the Widow Wumple wasn't quite sure what this last was, but was sure it was unwholesome. ". . . bound to be . . ." Another thing, etc., was gentlemen who would light up segars and not offer one to a poor old woman with the affliction in both legs and scarce a pennikk to bless herself with; Eszterhazy was so remorseful and hasty that he forgot to blow out the lucifer match before tossing it away.

" . . . and she says to me [puff], 'So you see Mother Wumple [puff], we be getting married in church so I hopes you won't draw the wrong conclusion.' [Puff] 'See?' says I. 'I ben't *blind*,' says I. 'Wrong conclusion, indeed,' says I. [Puff-puff] 'I've had 11 children of me own and can count up to nine as well as the next one, the wedding feast we needn't ask about but send me some sugared almonds from the chrismation snack,' ah they didn't have such things when I was a girl [puff . . . puff]."

Eszterhazy, in mock surprise, said, "Which? Christening or sugared almonds?" The old woman cackled, smacked skinny hand on skinny knee.

The lucifer had begun to burn more and not less brightly, and he felt obliged to dismount and stamp it out. And stayed where he was, looking.

"Ah, that's all that scurf from across the Little River," the old woman said. "First there come all that sawdust. Then come all that coal-dust.

The current wash them here, when the seas'nal tides was high. The both of them has sort of conglobulate together and dried out and a body has to be certain careful where she drop or dump a bucket o' hot ashes or that scurf will start blazin; ah they didn't have none 'f them things when I was a girl but now I'm just a old woman with the affliction in both legs [puff], and I can't do nothin about anythin [puff]."

Eszterhazy said that he would see to it that the rubbish was cleared away. But he set no date to it. And the two cantered on. And as the two cantered on, the European asked a question and the American delivered an answer. "What do I think —?" Why, I believe old Burgenblitz is not such a bad old son of a bitch for such a bad old son of a bitch as he is, you know, Elmer. Trouble is, he is *bored*! He's *tired*! Bein a European-style, country gentleman *bore*s him! Pokin fat pigs, feedin fat cattle, ballroom dancin, opry, why he's done it all, he is *bored* with it. He is *tired* of your make-buhlieve hunts, they air all *fakes*, Elmer — peasants drivin pheasants in front of where he stands a-shootin of them, servants loadin his guns for him, servants countin up his kills for him — why they ain't no good wars he could jine up into right now — folks want to go to Jerusalem they don't go on a Crusade, they go on a Cook's Tour — *he* can't read no books for pleasure.... So whut's left for him to do but to dig in his heels and say, 'Nobuddy tells *me* whut t'do!' Jest like some old Florida Cracker."

Much would "Elmer" have wished to ask him more about the Old Florida Crackers . . . from "Old" Florida? and what did they crack, corn? . . . but it was at that moment that everything changed; it was at that moment that he encountered De Bly, the Civil Provost of the Capital and *ex officio* a member of the Privy Council; De Bly was riding his dun gelding and riding him hard, Eszterhazy could not quite make out where, exactly, De Bly was going: and perhaps De Bly at that moment could not have made it out either. And De Bly looked like doom.

He hailed him. The man looked up, mouth open, chops sagging, began a gesture, let his hand fall, made as if to ride on: stopped, suddenly, waved the younger man to come on. Began to talk while they were still not face to face. "They tell me that you are a Doctor-Philosopher now, Eszterhazy, I don't know what that means, but I know you performed well in the Illyrian Campaign, and I know you did something quick and clever in the matter of that Northish King who came here incognito. Oh you better do something quick and clever right now, I don't know what it may be, but damned quick —" And then he told him what he had heard at the session of the Privy Council.

Eszterhazy listened, quite without joy.

Then De Bly went his wild, bewildered way, and left Eszterhazy to go his. Who, as he proceeded back towards the heart of the city, translated for his companion. Who thoughtfully said, "Sort of like . . . oh . . . sort of

like, say, Hayti and Santo Domingo tryin to carve up northern Mexico between them. Would *we* like that? No we wouldn't." But Eszterhazy had nothing to say to such a comparison.

And Eszterhazy had nothing to say when he heard Pard say, "How, Burgey. You old galoot." For a moment. He heard a wordless murmur. There, wearing the undress uniform of an officer of Imperial Jaegers, was Burgenblitz. He looked rather tired; and he looked at Eszterhazy, for all that he had recently been his guest, with the same wary indifference with which he looked at most people when he did not look at them with anger. A spark blazed hotly in the younger man's head. He raised his left hand as though, it being his right, he were about to take an oath. "Baron," he said, "I absolutely deny that you have any authority over me whatsoever." He of course gained instantly the Baron's interest . . . if not his understanding. "I also absolutely deny that I have any authority over you whatsoever." The Lord of Blitzenburg was not denying this denial; the Doctor of Philosophy and aspiring doctor of science went on, briskly but not hastily, speaking with clear pronunciation but avoiding any special emphasis of words; "Therefore not as one claiming authority and not as one designating or yielding authority, but simply as one member of the Order of St. Cyril to another, I do ask this of you: that you, acting upon the rank of special constable inherent in your own noble rank, take charge of the field called the Old Fair Grounds. That you take charge of whatever supplies may be sent to it. That you enlist the help of as many soldiers or sailors whom you may need and find at liberty, as you are entitled to do anyway by virtue of your own military rank . . . you are certainly justified in treating them to beer . . . there is a crisis impending and apparently the State cannot act in time." Eszterhazy ceased to speak.

The eyes of the Baron Burgenblitz of Blitzenburg had grown distrustful, then became sly, then wandered to Pard Powell, whose own glaucous glance met his . . . who nodded solemnly. Eszterhazy spoke again. "We have learned that both Graustark and Ruritania may hold a *demarche* in the Disputed Areas in hopes of annexing the Ottoman provinces." The Baron's glance became absolutely opaque. "Sir," said the Doctor, "I now request my *congée*." He made an informal salute.

Burgenblitz returned it. "You may go," he said, languidly. "And damned if I don't flay you, slowly and alive, if this turns out a tarradiddle." (And doubtless he would, thought Eszterhazy. Claiming a feudal privilege to do so.) The Baron was gone before the thought. Gone slowly. But he had headed his horse towards the Old Fair Grounds.

"Brunk." Abruptly.

Brunk (aggressively): "Can prove *nothing!* Nothing, *nothing* prove!"

Doctor (calmly): "No? I can prove I know the Emergency Laws of the Year of Bonaparte better than you do."

Brunk had been prepared to shout about the sludge in the river. Brunk was dressed as usual in a suit appropriate to an upper clerk. Along with this Brunk wore the foxskin hat of a country bailiff, a gorgeous gold watch and chain, and a pair of miner's boots. Poor Brunk! He did not yet know who he was. Or who or what he might yet be. And, certainly, he was not yet prepared to claim wide knowledge of the Emergency Laws of the Year of Bonaparte — that fierce and frightful Year which first pushed the Confederacy of the Lower Ister on its way towards empery — though certainly he had heard thereof. "*What Law Bonaparte?*" asked Brunk.

"As an emergency measure I can here and now dismount and burn your coalyard to the ground —" See Brunk's mouth open very, very wide. "— and oh certainly I should be obliged to pay compensation." See Brunk's face indicating his calculation how much this could be, plus interest. "Oh of course it would be compensation at the value of the place during the Year of Bonaparte . . . what? A hundred ducats?"

"*What a hundred ducks burn my place Bonaparte?!*"

"But I won't." Eszterhazy. *Very* quietly. Brunk had begun to reel a bit. Things were going too rapidly. He put out both his hands palms down at breast level. He looked rather like a rather disorganized dancing-bear.

"Now here is what you have to do. . . ." Brunk, mouth a-sag, nodded silently. "You have to take a few good men with wheelbarrows. Cross the Little River. *Now*. Mother Wumple's Yard. Where all the *stuff* has washed up and dried. You are to break it all up. Into little pieces. About the size of a common hen's egg. Carefully. *She* won't prevent you. And then you're to have your chaps wheel it along to the Old Fair Grounds. Pile it on a couple of good large tarpaulins. *Cover* it with a couple of good large tarpaulins. *Got that?*"

Brunk had been nodding, nodding. First he lifted one foot. Then he put it down. Then he lifted the other. Then he put it down. Then he asked. "*What I must do next Boss my place Bonaparte don't burn?*"

Eszterhazy thought a moment. Only a moment, though. Then, in the crisp tones of an officer who has allowed the men to take two minutes to piddle into a hedge, and Brunk would certainly still be on the Semi-Active Militia Lists, the officer by his tone now indicating that it was back to **Forward! MARCH!** Eszterhazy said, "Draw four times four rations upper NCO quality plus four times ten rations other ranks quality. And see that it is delivered with the rest, *go!*"

And Brunk, breathing heavily, muttering disconnected words . . . burn, Bonaparte, boss, rations, NCO, break, pieces, eggs . . . Brunk *went*.

Any decade, any year or month or week now, capital in Scythia-Pannonia-Transbalkania would discover its own power. And leap, roaring, forward. With, right behind it, labor. And yet and meanwhile? Well. Not today.

. . .

Professor Gronk had accepted development as calmly as he had accepted stasis. Washington Parthenopius "Pard" Powell, who had been given his own emergency task to perform, had performed it. And had returned. The inventor's loft was a-blaze with scarlet silk. "What do you mean, 'Did I have any trouble?'" Why, harlots is the most patriotic class of people they is, irregardless of nationality or theopompous preference. Course I lied a lot. Told 'em I needed it fer to make belly-bands so the sojers wouldn't ketch the cholera in the humid swamps of them Disputated Territories or whutchewcallem. Even showed whut size to cut they red silk petticuts cuttem up to. Then I give every house one a my little flags. 'N then they all *kissed* muh. Well. Here we are. Do we stitch? Or do we glue?"

In the Taxed Domestic Animals Division of the Excise Office.

"What does Skimmelffenikk report from High Hyperborea?"

Chairs were thrust back. Drawers rattled. Files were slapped down. The motto of the Royal and Imperial Scythian-Pannonian-Transbalkanian Excise Office was, "If you have nothing to do, do it very loudly, so nobody will notice."

"Here it is, Chief."

"There it is, Chief."

"Right over there, Chief."

"File Number 345 slash 23 dash 456, the 11th inst. Skimmelffenikk reports from High Hyperborea. . . ."

The Chief's round, whisker-encircled face took on a look of controlled patience. "Yes?" he enquired. "Well? So?"

Skimmelffenikk's report from High Hyperborea had been properly received, posted, docketed, filed . . . all the rest of it. However, it was rapidly becoming clear, nobody had read it. Until now. Vows were instantly (and silently) made to The Infant Jesus of Prague, All the Holy Souls, and St. Mamas Riding the Lion, that the Chief not completely blow up, declare Unpaid Overtime, fire them all, cancel the three-o'clock borsht break — None of it. The Chief read to himself without sound, the Chief read vocally in a mutter, then the Chief read altogether aloud. *Skimmelffenikk reports from High Hyperborea that to the sound of like real weird music the untaxed he-goats had been dancing and prancing with like crowns of flowers on their heads. . . .* And this statement had been signed in full by the Officer Reporting (Skimmelffenikk), attested by his Sergeant, one Grotch; and confirmed by the latter's Rural Constable, one Mommed, who makes his Mark, said Mark being herewith identified by the District Imam with Rubric in Turkish according to the Highly Tolerant Imperial *Permittzo. . . .*

There was no use to look in the *Rules and Schedules*. Everyone knew there was nothing on the subject in the *Rules and Schedules*. The Chief,

with the near-genius which signifies predestined high rank, simply put the file down and went home early.

Brunk — **Brunk** was by the way the coal-magnate; **Gronk** was the inventor — Brunk had not got everything quite right. The bit about digging up the entire bed of dried mixed coal-dust and sawdust and carefully breaking it into egg-sized pieces, *this* he had done exactly as directed. It was the rations which had confused him, and this confusion he had passed on to Frow Brunk. Frow Brunk kept a very hearty table, and she did as she thought she was told. She emptied the smoke-house, she emptied the bake-house, she filled a wagon full of bread and cake and sausage and hams and brawns and cheeses and roasted this and pickled that. Who knew what Bonaparte might want. The five soldiers and four sailors whom Burgenblitz had in effect personally conscripted had never had such a feast since . . . since . . . well, likely, *never*. And the barrel of home-brewed ale which Frow Brunk had sent along caused the thin and sour beer of the corner tavern to be quite forgotten, something for which the keeper of the corner tavern was thankful, as when he had mentioned the matter of payment the Baron Burgenblitz had given him *such a look* that he had thought best to follow the example of that one of whom it was written, "And so he departed, not being greatly desired."

The conscripts had of course wondered what it was all about, but of course they had not asked. True, they were technically on liberty, but they had all spent all their money anyway, and their liberty now amounted to the right to sleep on the Armory floor if they wished. The Baron instead sent them to the Armory with a note for blankets, instead. The Baron set up guard-posts; they stood guard. When the mysterious whatever-it-was arrived, the Baron ordered it put in the middle of his impromptu camp in the middle of the Old Fair Grounds. Food having arrived, he had ordered rations distributed. To be sure, there were no dishes, no utensils, no table nor even table-linen: no matter: his share was neatly served him on a fresh-laundered skivvy shirt from a sailor's ditty-bag. And he ate every bit of it. And when some folk, having noticed the campfire with curiosity, came nosing around, they were promptly told to nose out.

Next morning:

First came the four fellows from the Royal and Imperial Navy, carrying what appeared to be a New England whaleboat, saving only that New England whaleboats are seldom if ever woven out of wicker-work. Almost immediately after that two soldiers came drawing a gun carriage, and riding on the limber and smoking a pipe and wearing his best ask-me-no-questions look was Baron Burgenblitz. How had he obtained the gun carriage? If you were an artilleryman alone on duty at the Armory and Baron Burgenblitz appeared at five in the morning saying merely the two

words, "*Gun carriage*," would you not have let him have it, being merely thankful he did not also say, "*Gun-horses*," as well? Hah. On the carriage was something covered over with oiled cloth. An expert on the subject might have conjectured that under the cover was a steam engine. A very small steam engine. And as to its being on a gun carriage, this may in fact have been co-source of rumors which long subsequently vexed Graustark and Ruritania, to the effect that "S-P-T has got *steam-cannon*! Oh God!" — a few other vehicles followed.

There was no established drill for what came next. Out of the wicker-work "boat" was produced a pile of bright red silk . . . well, bright red silk *what*? the sailors might have wondered . . . but theirs not to reason why, theirs only to fix the *what*? in places ordered by a suddenly in-the-here-and-now Professor Gronk. There were a number of sections of wicker framework. There were cries of, "Belay that rope! Smartly now! Five marlin hitches on the larboard side! A bowline on a bight, I say! Rouse up, rouse up, a bowline on a bight there!" and so on. Before the eyes of those who did not pass the fence around the Old Fair Grounds something rather like the ghost of an immense sausage — also made of wicker — gradually took form. Bright red masses hung in place. A murmur came from beyond the fence, then cries, then shouts. The cover was removed from the gun carriage, a flat trough of thin wood was hoisted aboard and promptly filled with sand from the ground and a thin metal plate placed in it, and what was now sure enough affirmed to be a small steam engine was lifted by many strong hands and set on the plate. And the Professor was everywhere, setting in place struts, screws, braces, all thin, all light, all strong, all long prepared — he filled the boiler and stacked jugs of water fore and aft —

And now a number of pasteboard containers were opened by order of Dr. Eszterhazy and given here a snap and there a slap, and one by one were filled with the curious black objects from under the tarpaulins. What *were* they? Professor Gronk, dreamer or not, had sometimes a way of getting to the heart of things. "What *are* they?" he asked.

Eszterhazy, the wind riffling the short beard which had grown a trifle darker in recent years, said, "This is that new fuel of which I spoke. It is composed of the waste-dust of very soft coal mixed with sawdust of, I should estimate, pine, with of course some residue of resin which acts as both a binding agent and an inflammatory . . . as a sort of phlogiston, to apply a rather *passé* term . . . the whole lavaged with the water of the lower Little Ister, and what semi-solids *that* might contain awaits further analysis. I have had this fuel-substance cut up into small pieces so as to make easier such finer adjustments of the flame as —"

"Get it up," said Gronk, shortly. His pop-eyes darted here and there, rather like those of a chameleon keeping a sharp eye out for the cat. The boxes of fuel were gotten up, the engine was by now fastened in its place,

whence, one hoped, any sparks would fall harmlessly into the sand, and a lucifer struck to the first piece of fuel; a briquette it might perhaps be called; perhaps not. It glowed and continued glowing even after the match burned out. It was blown upon. More was added. In a few moments a small fire burned in the grate beneath the engine's boiler. The arrangements above the engine were complex. From the catchment above it led a number of sleeves and each sleeve terminated in one of the drooping masses of red silk. . . .

And now was displayed one of the true beauties of the Autogóndola-Invention, for the fuel was made to do double duty: the same heat which turned the water into steam also filled with heated air the bellies of what were gradually discerned to be five beautiful, big balloons — five they were in number, but the wicker-work frame lashed together according to its inventor's directions held all five cohesively as though they had been one. The wicker boat lashed beneath began slightly to tremble.

And then two voices were heard, one of them familiar to the Doctor. "*Bon jour! Bon jour!*" this one cried, in a strong accent not French. "Thee spear-eats sayed me, '*Ascend!* These morning you shall *Ascend!*' Who knowed what eat mins, '*Ascend?*' So I comb over wheeth Jawunny to find out. These ease Jawunny. *Bon jour! Bon jour!*" Katinka Ivanovna wore an outfit of brilliant-bright-orange, and a beaming smile, as she climbed into the "boat" and looked eagerly around. Her blue eyes sparkled. Whatever the spirits had meant, it evidently contained none of the gloom of the Road to En-Dor.

Climbing in right after her was a fine large glossy animal of a man, with astrakhan lapels on his surtout, a long thick sleek moustache, and an atmosphere of the very best hair-oil: this, presumably, was Jawunny. "*Buon giorno! Buon giorno!* Gian-Giacomo Pagliacci-Espresso; allow me to present you a cold *fiasco* my very best produced Italian sparkle-wine, *tipo di champagne*, you will prodigiously delight; *marón!* And *achi* also some bearskin lap-robe, plus here an entirety of one case of such my wine, I bottle in Bologna, next my sausage-factory, *brrr!*"

Dr. Eszterhazy looked a bit doubtful as the signor helped place the case in the center of the 'Góndola, but Professor Bronk, with a quick appraising glance, said, very briefly, "Ballast." And returned in controlled frenzy to fastening wires and aerolines, and to spreading out maps and examining various pieces of scientific equipment. "*Laaaa . . .*" sang Mme. Dombrovski, hand on bosom. She waved to what was now a large crowd straining at the fence; the crowd waved back and cheered.

Another figure moved slightly. "Well, Baron Burgenblitz . . . do you come along?" asked Eszterhazy.

"Try to prevent me! — try. In regard to the source material of your pretty red balloons, my patronage has supplied much of it." The Baron settled himself into a pair of the bearskin lap-robcs, one of which he slung

over his shoulders, applied his pipe to his tobacco-pouch, and growled.

It was at this moment that Sgr. Gian-Giacomo Pagliacci-Espresso, glancing around, said, with a slightly nervous tremor, "Pray inform the sailors be careful with ropes, else this . . . this *cosa* . . . might accidentally go," his eyes rolled, he seemed suddenly to obtain a better grasp of situation, "**UP!**" He leaped over the side, and from the *terra firma* reached for Mme. Dombrovski; but the abrupt loss of his weight, plus the greatly increased swelling of the red silk balloons, caused the Autogondola-Invention to strain against the *lines* held by the sailors, who — taking his last exclamation as a signal — stepped back smartly and released them. From inside came cries of annoyance, perhaps alarm, but these ceased abruptly. There was much else to do.

The splendid scarlet Autogondola-Invention went soaring up into the misty heavens. Gronk, at the scientific instruments, called out courses, Eszterhazy plied the wheel which controlled the tail- and wing-vanes, Pard Powell from time to time stuck his finger in his mouth and held it up to test the breeze, from time to time suggesting slight changes in direction so as to take best advantage of prevailing winds; the engine, as engines will, went **choog-choog, chuff-chuff**;<sup>\*</sup> and Katinka Ivanovna, waving the tri-national flag, holding now on to one rope and now another, semi-incessantly sang out, "Onward, great-glorious-successful Scythia-Pannonia-Transbalkania, hairness to thee future weesdom of the ages!" From time to time she avoided hoarseness by sipping from a *fiasco* of the produce of Sgr. Pagliacci-Espresso's winery; and, now and then, with a merry gesture, she shared it with the others; when it or its successors was empty she tossed it negligently aside . . . on one occasion so much so that it went clear over the side, and, hurtling through the clouds, picked up impetus enough to pierce the surface of a certain farm-field known for its dryness, where at once and in the presence of the farmer and his farm-boy a fountain spurted. A hundred years later people were still dipping hankies into it in the belief that it cured warts.

For long periods they flew through clouds and all was grey, then for long periods the skies cleared and down below they saw the land as though cut out of scraps of velvet by some elven artist, fields of vari-colored crops green and greener and yellow and red; here and there a toy-town and its fairy towers. Now and then they were above the clouds and looked down upon fleecy layers towards which, almost, it seemed they might descend and walk upon.

It was at one such moment that Burgenblitz of Blitzenburg said, "We are nearer to Heaven than we were."

Washington Parthenopius Pard Powell silently handed over the peace pipe. The Baron silently took it.

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<sup>\*</sup>Also, **wurble-wurble**.

The Conjoint Chiefs of Staff of the Combined Ruritanian-Graustarker Manoeuvres Near or In The Authorized Areas (AUTHORIZED sounded ever so much nicer — and safer — than DISPUTED), the Margrave Graulheim and the Prince Rupert-Michael, were feeling very pleased with each other. There had been no sign of a sign from Scythia-Pannonia-Transbalkania, no sign was really to be expected from Turkey (the Sick Man of Europe was still very sick; Abdul Hamid's method of preparing himself for the throne was to take courses in mathematics, marksmanship, and magic), and God was in Heaven and the Czar was far away. The Conjoint Chiefs stood at a table looking at a map which a century (and then some) of boundary rectifications has rendered unrecognizable; but as they did not know this, they continued feeling very pleased. The CCs' uniforms had been ordered from the best military (or perhaps theatrical) tailors in Potsdam; with pickelhaube helmets, long overcoats which belted almost under the armpits and reached almost to the insteps, boots with huge spurs, heads shaven, and long goatees and long moustaches upturned, they looked frightful indeed: and when they considered this, they felt even more pleased. The cookfires had been lit and appeared very welcome, too, what with the evening dews and damps. It was then that the two CCs began to look around; so did the soldiers. "Odd sound," said the Margrave. "Sounds like what they call a locomotive engine; heard one once," said the Prince. Both together they said, "None *here*." Indeed there was not, and as there were yet none in either Graustark or Ruritania either, hardly any of the soldiers had ever seen or heard one. But the strange noise still persisted, like the transpirations or suspirations of an alien creature; then the mists parted, the troops gave a great shuddering cry, and the great setting sun bathed with its dull rosy rays the . . . the *what?* There it *was!* . . . but what *was* it?

Answer was immediate. A young but zealous and excitable cavalry-corporal cried, "It be the Great Red Dragon and the Woman Clothed with the Sun," possibly a reference to Katinka Ivanovna in her orange outfit of satin and gauze; "Armageddon! The saints be casting down their crowns a-nigh the glassy sea; *re-PENT!*" And, casting down his brimless cap, he commenced beating his brow ritually and rhythmically with his fist as he chanted an immensely long *Recital of Remorse*, ranging from Assembling to Commit Fornication with Two Other Stable-boys and a Tavern Wench; down to Zedoary, a Great Quantity of Which I Snatched From an Apothecary to Buy Booze.

Pandemonium in the ranks.

Bearing down at them from an altitude as yet unestimated was *A Thing*, hideous beyond belief, something like (were it possible) an immense aerial insect, although with more body sections than any insect could possibly have, or had it? was that its giant thorax moving in and out? was it merely the wind? were those things jutting out here and there *wings?*

Or were — could they be — *fins*? Was this all some dreadful dream in the declining day? Was that a Scythian-Pannonian-Transbalkanian flag? Oh Hell and Purgation yes it *was*! — also a perfectly dreadful voice from the heavens barked orders at them and as they milled around in confusion and in terror, *The Thing* swooped and swerved and darted and hissed at them with its scalding breath —

Military marksmanship had nowhere included shooting at a steam-propelled Autogóndola way up in the middle of the sky, nor had anyone been trained to fire at a 35-foot long bird; and though Margrave Graueheim was an excellent stag-hunter, he had never had occasion to hunt a giant stag 100 feet above him: who *had*?

"*Halt!*" cried that dreadful voice from the heavens. "*Halt! Fall in! Stack arms! Officers, prepare to surrender your swords at an oblique angle! Thrusting the right foot one foot forward and taking hold of the right trouser-leg with the right hand: Ex-pose . . . HOSE! Sergeants of the 3rd Graustark Chasseurs, take the names of those officers wearing green striped stockings, daresay they patronize the same haberdasher in Port Said, what do you mean by wearing green striped stockings at a formal surrender, you dumb sons of bitches!*" There was no disobeying that dreadful voice in the sky, and when a battalion of Ruritanian Regulars attempted to sneak away, the Autogóndola sailed along their line of cook-fires (*lovely up-drafts!*) and dropped what were really not howitzer shells but boxes of Brunk-stuff right into the fires; the confected fuel at once pulverized and exploded, sending hot pilaff flying just about everywhere; also the Prince Rupert-Michael was almost struck by an aerial grenade which very oddly left his coat smelling like a rather low-grade champagne; funny.

It was with a complete mixture of humiliation, fear, and relief that they heard themselves being let off with a mere fine for "Having Entered into the Disputed Areas Without the Conjoint Consents of the Emperor, the Sultan, the Woywode of Western Wallachia and the Grand Mameluke of Neo-Macedonia, to the Great Affront of All of Them"; the fine being, well, never mind what the fine being, and officers of flag rank were ordered to take it in large bills from the Pay Chests and drop it into the basket now descending to eye-level; no sooner was the basket filled than it was zipped up out of sight again and a voice with a strong American accent was heard counting its contents.

The implacable Voice from above now announced that torches be lit and that all Ruritanian troops at once march for Graustark and all Graustarker troops march at once for Ruritania: they marched. Long after the huffing-puffing creature had ceased to snuffle and hiss back and forth checking on them, breathing redly in the dark, they kept on marching. They didn't dare *not*.

The Autogóndola descended to take on water and conserve fuel by

resting in the deserted camp for the night.

The World Tribunal has long been occupied with the cases of *Graustark vs. Ruritania* and *Ruritania vs. Graustark*.

Meanwhile, back at the Palace:

Ignats Louis, Emperor of, etc., etc., was gloomily taking his post-breakfast walk in the Gardens when a figure detached itself from a rake, and, bowing, asked permission to speak. Granted. "Guess what I seen this mornin a-comin to work, Your Imperialness?" "Tell me, Genórf. We know you wouldn't lie . . . not to *We*, anyway."

Genórf, I. Pal. Gard. Rakeman, Upper Div., said that in coming to work that morning he passed close by the Old Fair Grounds at usual and was surprised to see there on dry ground a boat like with red sails like. And then come along this red-haired woman Gazinka Somethingovna, what they say she's a witch and in she got to the boat and with no more about it *off* sailed the boat only it like sailed *up* . . . in the very general direction of Wallachia or Macedonia or Graustark maybe or Ruritania rather: and might she lay a curse on all them foreign folk and drive their he-goats mad. Or worse. ". . . Apology to Your Presence, Sire . . . But, now, what might you think? About such witchery . . . ?"

His Royal and Imperial Presence thought about it, stroking his bifurcate beard right-side, left-side. Then he said, "Well, We'll tell you, Genórf. Them country witches such as they had when *We* was a boy, they was good enough to dry up cows or cure the clap, but nowadays things keep getting more modern and we must move with the times." And as a reward for the information, he was Graciously Pleased to direct that Genórf be given a large bowl of suet dumplings plus six and a third skillings plus a big glass of shnops. "And to make certain it be *good* shnops, come, We'll have one with thee; come to think of it, all of ye have one with *We*," Ignats Louis sometimes had difficulty with his pronouns; "and if the Frow High Housekeep' don't like the smell, tell her to hold her nose as she drinks it: Graustark and Ruritania, oh haw haw! We can't wait to *hear*!"

Avar-Ister, Second Capital of the Triune Monarchy (there really was no "Third Capital"), had gone to bed in a rather ugly mood. Not only were traces of some awful bad gunk coming down the Ister from the general direction of the First Capital, but the Post Office had just gotten a new issue three-pennikk stamp (one and one-half pennikks being equal to two-thirds of a copperka, except . . . but we had perhaps leave that for now) of which the Avar legend lacked a Silent Letter . . . the incomparable richness of the Avar idiom containing *many* silent letters. Avar Nationalites at once revived the traditional cry of, "Are we going to stand for

this?" with its terrifying reply of "*Nudgeszemeldinkelfrasz!*" or (in Avar) *No*. Tom-toms did not precisely beat all night, *but* — Shortly after sunrise, well, to be perhaps needlessly blunt, conveniently after breakfast, a concourse of Avar Patriotic Intransigents began to move grimly along the Korszo towards the Viceroy's Castle: when, suddenly from behind a cloud was heard an Angel's Voice singing the Pannonian National Anthem. Not realizing that it was actually the voice of Katinka Ivanovna Dombrovski — she had learned it in Zagreb one bleak winter from an Avar exile who, whenever she slacked learning it, pinched her, severely — the Avars *naturally* stopped dead. And stood at full attention, only turning their heads to watch the Autogóndola-Invention fly the full length of the Korszo from east to west, joining in the singing of the first 35 verses; then, the Autogóndola-Invention having unaccountably gone into reverse, turning their heads to watch it fly the full length of the Korszo from west to east backwards, joining in the singing of the second 35 verses: who was not there to hear Madame K. I. Dombrovski render the moving lines:

*"Hoy, Pa-n-no-mia, hoy!  
Yoy, Pa-n-no-ni-a, yoy!  
O-oy, Pa-n-no-ni-a, oy!"*

in full coloratura, has not heard anything.

But must not all things come to an end? Yes.

It was whilst prolonging the final, poignant, patriotic, *oy* that the voice of Katerina Ivanovna went briefly hoarse . . . then flat . . . then cracked . . . then gave out entirely. And it was at that moment that the Autogóndola-Invention suddenly went completely out of control and made what may be called, to coin a phrase, a "crash-landing," on the top-deck of the R. and I. Lighthouse Tender *Empress Anna-Gertruda*, fortunately without anyone being injured . . . and with it steamed upriver towards Bella. The cheering Avars then all went back home to put hot compresses on their stiff but patriotic necks.

Who would ever *know*? . . . but somehow Dr. Eszterhazy, having reflected much upon it during free moments of his aerial tour, thought he now understood more of the Mystery of the Goats. There being no tax on the she-goats, there was no need to conceal them. As for the he-goats, they being needed only during breeding-season, why it was they who were herded up into the far wild pastures in the mountains in hopes of avoiding the tax-collectors — and it was evidently only there that the hallucinatory plants grew — nightshade! traditional in witches' brew! — As for the attested reports of the strange music (surely not upon pan-pipes!?), one must simply, mentally, stamp it: *unsolved*. Eszterhazy



might suggest the goat-tax be reduced and its revenues equalized by, say, a fourth-pennikk tax a case on refined sugar, which peasants never used anyway, preferring honey or sorghum or brown sugar-loaf; doubtless then the he-goats would be kept down out of the danger zone. He could suggest. More than that he could not do.

Meanwhile —

Engelbert Eszterhazy, Ph. D., *aspirant* D. Sc., was entertaining guests.

"... the new fuel caused a build-up which choked all the tubes eventually," Professor Gronk was complaining. Eszterhazy said that the two of them could really call on poor old Brunk shortly and show him how to filter the sludge washed off his soft coal, and re-filter and so on until the wash-water was clear enough to let back into the river. And then they two would work out with Brunk a better formula for mixing the coal dust and sawdust and whatever into a really decent fuel... "For stoves, anyway."

The professor made a gesture. His prominent eyes swiveled all about. "It is not alone the fuel. The design is wrong I see now. The wires snap. The aerolines flap. The framework does not stand the strain. The Autogondola-Invention does not properly take the helm. The instruments, *yoy mein Dieu* the instruments: I must tell you that not only half the time we really used the wind and not the engine but half of that time the instruments proved there *was no wind* to use! Seemingly, it should never have flown at all! It is as though some witchcraft or magic —"

Eszterhazy stroked his moustache. He looked pensive. "The old magic and witchery is almost everywhere in retreat, Professor. Only here at almost the very edge of the European world does it ever turn and fight. Elsewhere it masks itself and tries to sneak in via the medium and the planchette, but that is not quite the same magic. Nor the same witchery. Well. Eh? 'The Autogondola-Invention will take years more study and work?' Well, meanwhile let us keep it quiet. It is clearly something for which the world is not yet prepared. Have you tried the sausage? It is . . . *there*." The Professor's floating eyes ceased to float, concentrated on the sausage. In a moment he had left his host behind.

Instantly the place was taken by Burgenblitz of Blitzenburg; never had the Doctor seen the Baron so voluble. "The castle is doomed, Eszterhazy; the day of the fortress in the forest is over; this little adventure has shown me that anyone may put a motor on a balloon and float over dropping explosives anywhere, so what good's a castle if you can't defy the world from it? Well, I'm selling out. Yes. Giving up. Shall go hunt crocodiles in La Florida by the waters of the Tallahassee and the great Sewanee; my pal Pard has been persuaded to act as guide for the most modest of fees out of which he himself shall pay the native — what? Sioux? — to paddle us in their — what? Wigwams? — as I believe the catamaran is called in its native language; we shall go by way of London where the best crocodile-gun and mosquito-netting is made, also to purchase tomahawks, beads, and red cloth to trade with the Crackers as I believe the picturesque aboriginals are also called. . . ."

Eszterhazy's eyes met those of Washington Parthenopius "Pard" Powell, who let his own eyelids slip to half-mast and drew a puff on his calumet. To have the Baron Burgenblitz actually *out* of the country for even whatever length of time was a gift of fortune hardly to have been looked for. "Ah Burgenblitz how I envy you," he said. "The castle-fortress. Indeed. *Doomed*." It had, like the walled city, indeed been doomed: since 1453; Burgenblitz was a slow learner. "Hm, crocodiles. Florida, hm. You will not of course wish to hunt the great saurian *all* the time. You would be bored. Fortunately in La Florida there is the legendary life of the *planter* to occupy and amuse you as well. I believe I have read a report that the soil there is excellent for the possible cultivation of the Comparatively Thin-Skinned Yellow-Green Juice Orange, of which cuttings are said to be available at the Botanical Gardens in Kew; pray mention my name to Mr. Motherthwaite, the Curator for Juicy Fruit. Ah. La Florida! You will buy lands there, eh?"

Burgenblitz, who had never once considered doing so, now cried, "But yes of course I shall! That is . . . I hope . . ." he turned to his pal, Pard, ". . . will the picturesque aboriginal Crackers trade land for red cloth?" His pal Pard once more gave Eszterhazy a glance from his glaucous eyes. "Be tickled pink to trade it for most anything," said he. "Money, marbles, or

chalk."

Burgenblitz drew out his pocketbook to make a note. "The money is no problem," he said. "As for the marbles, we shall pick up some at Carrara, and I am sure that at Dover we shall be able to procure chalk." As the two of them walked off, deep in talk, Pard Powell was heard to say that when he was in Honduras with William Walker, treacherously executed to death by the people he had come to liberate, William Walker was often heard to say that any man could plant wheat and shoot birds but more than anyone was to be admired a man who could plant orange trees and shoot crocodiles.

The gaslight hissed. There, suddenly, laughing at him, was Madame Dombrovski. A sudden retrospective vision of her clinging now to one rope aloft, now another: *had* he seen her fingers moving deftly, swiftly, through the ropes' ends? . . . and if so *why*? Why . . . *seemingly, it should never have flown at all!* "Ah, Katinka Ivanovna. Tell me. Are you really Russian? Polish? Or —"

"'Rilly'? Rilly, I am Rahshian Feen. Often comed famous Lönnrot to my Grandfather house in Karelia, collecting *kalevala*; why ease eat you ask?"

He tweaked his nose. "Oh . . . No particular . . . Tell me. Have you ever heard it said that many 'Russian Finns' are witches and warlocks? That they are said to be able to raise and direct the wind by tying knots in ropes, or even by singing . . . ?" But merely she looked at him, her blue eyes merry and bright. Then she laughed, and, laughing, moved on. *Move on.* As host, he, too, must . . . In the group nearest-by were several of the young liberals, intellectuals and sceptics. *What* were *they* talking about? Not, certainly, about the price of hog-lard, still staying calm and steady at 17 ducats, seven skillings the hundredweight — *at home*, that is; it was reported to have reached such astronomical proportions in Siberia owing to an outbreak of hog-cholera that the peasants were obliged to eat butter.

"No, no," said one, shaking his head. "The hope of education as an adjunct to popularism is a vain one. Why, only now, even now, stories appear that the bulls in Transbalkania are no longer savage and have been seen and heard dancing to strange piping music with wreaths and garlands round their necks! Peasants who believe such stories are not yet ready to vote. No no."

And said another, adjusting his pomaded moustache, "Yes, and the papers encourage that sort of thing. Look, here in today's evening paper, *Report from the Rural Districts*, listen to this, it's being said that a country girl near Poposhki-Georgiou saw a bull with a wreath of flowers round its neck and she climbed up to get it and then the bull ran off with her still clinging to its back. . . ."

"Silly girl!"

"What was her name; it wasn't Europa I suppose?"

"No it wasn't; what kind of a name is that; it certainly isn't good Scythian Gothic, what?"

The one with the newspaper gave it a second look. Said, "Olga."

"Olga?"

"See right here in the paper: Olga. *Here.*"

"Zeus and Olga? Doesn't have quite the same ring to it as —"

His friend shrugged. "Oh well. Other times, other mirrors."

Eszterhazy felt he liked this, came closer.

"What chap was it who said, nature always holds up the same mirror, but sometimes she changes the reflections?"

The other sipped from his glass of bullblood wine while he considered. "Don't know who said it. You're sure somebody said it? Well, it's either very profound or very silly."

They sipped and talked as they moved on to the quaint buffet; this fellow the Doctor their host, was he carrying his Love of the People too far? . . . head-cheese, sausage, now, really! — And then suddenly a hand was held up for silence. "Oh listen! You can hear the bell of the ten o'clock tram down the road, last one till five tomorrow morning, best hurry! Be hard to find a cab if we miss the tram." Even in Bella, sophistication too had its pains and costs.

Down in the street. "Thank you, Doctor Eszterhazy! Oh it was indeed a pleasure, Doctor Eszterhazy! Good night! Good night! Engelbert! Night, Engli . . . !"

For some while he remained there, simply enjoying the mist around the lamplights; suddenly a commotion, there on the next corner was someone shouting and waving his hands and screaming for a fiacre. It was Signor Gian-Giacomo Pagliacci-Espresso. "The Central Station! At once! A fiacre-cab! Pronto!" Would one stop for him, no, one would not, very odd considering the local libel that fiacre drivers "would drive the Devil to mass for a ducat," was this surprising? Considering that in one waving hand the wealthy wine-bottler held a stiletto and in the other a pistol, perhaps not.

Then, too, it was *late*.

On recognizing Eszterhazy, the man shouted, "Katinka Ivanovna, that slut, that *buta*, she has left me, she has eloped either with Baron Burgenblitz or the Far-western Yankee poet Pard, I do not know which —"

To himself, Eszterhazy murmured, "Perhaps both;" but aloud he spoke so sympathetically he persuaded the man to replace the weaponry of vengeance and to come up to Eszterhazy's chambers for a soothing drink, instead. Sobbing softly into his astrakhan coat-lapels, he agreed.

And so, by and by, once again all was quiet in front of the hotel in the little square at the bottom of the Street of the Defeat of Bonaparte (commonly called Bonaparte Street).

And overhead shone the glittering stars.



*The author has been the editor of Analog Science Fiction and of Omni; but he has recently retired to Connecticut to pursue a full-time writing career.*

NASA, the National Aeronautics and Space Administration, will be twenty-five years old in October of 1983. Over the course of this quarter-century, in the eye of many a beholder, the space agency has all too often been a victim of its own success.

Even before there was a space program, most Americans tacitly assumed that the first steps into space would be taken by the United States. After all, it worked that way in all the science-fiction novels and movies, didn't it? When the Russians put up Sputnik I, October 4, 1957, the shock to America was traumatic — especially for those of us who were working on the Vanguard program, which had been billed publicly as "man's first step into space."

We knew that the Russians had bigger rocket boosters. We knew that they intended to launch satellites. And we knew, better than anyone else, how frail the entire Vanguard operation was. But knowing and *believing* are two different things. We were just as stunned as everyone else when Sputnik went into orbit.

NASA was created by Congress in October 1958, and America played catch-up for almost ten years. But once President Kennedy established the clear goal of reaching the Moon, the U.S. space program moved steadily ahead. On July 20, 1969, the most extravagant adventure the human race had ever undertaken culminated before the eyes of more than a billion television watchers as Neil Armstrong stepped onto the surface of the Sea of Tranquility.

The Apollo program cost some \$23 billion. To most taxpayers, the success of Apollo looked so easy that they began to think of it as a huge technical stunt. "The Moondoggle," it was called. Why were we spending so much money on space when there were so many pressing needs here at home? The Soviets, once they realized they were going to finish second in a two-man race, cleverly told the world that they had never intended to send men to the Moon anyway; the race was a figment of Washington's imagination.

By 1972, President Nixon could scrap the Apollo program. The nation was preoccupied with Vietnam and Watergate. Some 400,000 jobs were lost when Apollo was killed, and an estimated two million indirect jobs went down the drain with them as once-thriving space communities in Florida, Alabama, and Texas shrank drastically. The whole national

economy started to slide badly, in part because the economic payoff of Apollo was still several years down the road.

Today, one of the few bright spots in the sluggish American economy is the electronics industry. Tens of billions of dollars worth of computers, calculators, multi-function wristwatches, videogames, and other micro-miniaturized electronic gadgetry were sold around the world last year alone. The jobs and profits from this new industry have already repaid the money invested in Apollo.

But these are invisible payoffs, as far as the average taxpayer is concerned. There is little or no connection in the public's mind between today's vigorous electronics industry and the space technology that spawned that industry.

Through the 1970s, public interest in space operations hit bottom, mainly because there were so few manned American space missions. Skylab put astronauts into orbit for up to three months at a time, but ended in an embarrassing fiasco when the 90-ton space vehicle plunged back to Earth. The joint Apollo-Soyuz mission in 1975 was a brief fling at *détente* in space, but it accomplished little more than a weightless handshake between Cosmonaut Alexei Leonov and Astronaut Thomas Stafford (both of whom are now generals in their respective services).

The scientific exploration of the solar system produced a steady stream of spectacular successes through the 1970s and early '80s. Unmanned spacecraft visited Mercury, Venus, Mars, Jupiter, and Saturn. Two Viking landers probed the red soil of Mars for signs of life in 1976. Voyagers I and II sent back breathtaking pictures of giants Jupiter and Saturn and their dozens of moons. Yet the public's excitement over these triumphs was as short-lived as the hoopla that comes when the circus arrives in town.

But all through the 1970s, out of the public's eye (for the most part) NASA was building the space shuttle, the vehicle that has ushered in the second phase of the space program.

Phase I was exploratory, experimental. Almost every mission was a first, a dramatic flight into the unknown. The scientists and engineers have explored much of the solar system, and tested their machines and teams of skilled people. Now, in Phase II, we will see the beginnings of the real payoff: new industries, new resources, new economic benefits are coming to us from space.

Just as the decision to "go for the Moon" was crucial to the development of an organized, focused space effort in the 1960s, the decision to develop a re-usable space shuttle has focused NASA's work through the 1970s — to the detriment of all other programs, it must be admitted.

For nearly a decade now, just about half of NASA's annual appropriations have been poured into the space shuttle. Space scientists such as Carl Sagan and Bruce Murray have repeatedly pointed out that the

money spent on the shuttle could have launched hundreds of unmanned probes to the Moon and planets, returning an incredibly rich harvest of new knowledge. Other development programs in aeronautical and space technology, programs that could lead to new breakthroughs in aircraft design or space equipment, have suffered funding droughts.

Dr. Murray recently resigned as head of the Jet Propulsion Laboratory, the part of NASA that directed the highly successful Pioneer, Viking, and Voyager missions. As Murray put it, "A funny thing happened on the way to the outer planets. While the (planetary explorers) functioned relatively smoothly in space, circumstances in their terrestrial birthplace were not so harmonious. . . . NASA plans for a smooth transition to the reusable space shuttle were dashed by schedule delays and burgeoning costs. All planetary launches . . . became dependent upon timely development of the shuttle and upper stages."

But NASA's decision has remained firm. The shuttle comes first. Period. To paraphrase the late Vince Lombardi's attitude, "The shuttle isn't the most important thing. It's the only thing."

And just maybe NASA's decision is right. For the shuttle, with its 30-ton payload capability, can carry people and payloads into space on a regular, routine basis. Once all four of the government-funded shuttles are built and operating, flights into orbit could take place on a weekly schedule. Satellites and space probes that are larger and more complex than anything yet designed could be hauled into orbit by this space-going "truck."

"The real importance of the space shuttle," says NASA's Administrator, James Beggs, "is that in a few years we are not going to conduct any spaceflights without people going along: that transcends everything else."

The NASA budget for Fiscal Year 1983 reflects Beggs's thinking. Of a total requested budget of slightly more than \$6.6 billion, a little more than half — nearly \$3.5 billion — will go to the Space Transportation System, NASA's organizational title for the shuttle program. By contrast, space sciences will receive only about fifteen percent of the total NASA funding, slightly more than \$1 billion.

This means that most of the scientific projects already started have been chopped out of the budget completely. Among them are:

The mission to intercept Halley's Comet in 1986, and sample the primordial gases of the comet's tail. Russia, Japan, and the West Europeans will send probes to Halley's Comet; the US will not.

The International Solar Polar Mission (ISPM), which would have sent two spacecraft around the north and south poles of the Sun, to study the structure of its magnetic fields and provide data on how the Sun's seething activity affects the climate and the magnetic field of Earth. Since ISPM was to be a joint mission with the European Space Agency, the

American cancellation particularly upset the West Europeans, who are left with one-half of a mission.

The Venus Orbiting Imaging Radar (VOIR), which would have put a radar-mapping satellite into orbit around Venus, the planet which is perpetually covered by thick clouds heavily laced with sulfuric acid.

As Dr. Murray put it, "A brilliant burst of American imagination and energy, catalyzed by the Apollo decision, carried our sense and intellect . . . outward beyond Saturn — but has now nearly run its course."

Two major science projects remain in the NASA plan. One of them is the Galileo program, which will send spacecraft back to Jupiter, the largest planet of the solar system. An orbiter will allow scientific studies of the massive giant and its moons over many months, rather than the fleeting hours provided by flyby craft such as Voyager. And a probe will be sent into Jupiter's turbulent atmosphere, to penetrate below the clouds and send back data from a region where no human eye or instrument has yet been.

Galileo was almost cancelled by the Reagan Administration, but cries of protest from the scientists, from NASA's own administrators, and from the general public — enthused by efforts such as Dr. Sagan's *Cosmos* series on public television — saved the project.

Perhaps the most significant science project of them all is the Space Telescope, which will be carried into orbit aboard the shuttle in 1985. Small astronomical observatories have been orbited in the past; but the Space Telescope is a major chunk of equipment, a 94-inch reflecting telescope — its size alone puts it among the dozen largest astronomical telescopes in the world.

Placing it in orbit, however, makes this device the most exciting instrument since Galileo originally turned his hand-made telescope to the heavens, in 1609. The Space Telescope will orbit about 300 miles above the Earth. No clouds or smog or city lights will degrade its ability to see the universe. Astronomers who have spent lifetimes cursing the weather or the encroachment of urban lighting and the vibration of highway-borne traffic, will finally have an instrument in a domain where these problems are far behind them.

The astronomers will remain on Earth. Astronauts will check out the telescope once it has been lifted out of the shuttle's payload bay. Other astronauts will visit the telescope regularly to service it and change some of the sensing instruments attached to it. NASA even plans to bring the telescope back to Earth at intervals of perhaps five years to refurbish it, and then take it back into space again. (Only the 30-ton payload capacity and re-usability of the space shuttle allows such flexibility.)

In space, the telescope will be able to detect types of "light" that cannot be seen on the ground. The Earth's atmosphere shields us from most of the forms of radiation emitted by the Sun and stars. We see the small slice

of the spectrum that we call visible light. A little infrared and a bit of ultraviolet leaks through as well, and some frequencies of radio waves get through the ionosphere to reach the ground. But 300 miles up, the Space Telescope will be able to pick up the full range of electromagnetic energies: all the infrared, ultraviolet, gamma, and x-rays that the universe throws at us.

Riccardo Giacconi, director of the Space Telescope Science Institute at Johns Hopkins University, has pointed out that the Space Telescope will uncover so much new information that it will force astronomers to build new ground-based facilities to follow up the discoveries made in space.

Because it is above the obscuring effects of the atmosphere, the Space Telescope will be able to see seven times farther into the cosmic dark than any ground-based instrument. It may penetrate to the very edge of the observable universe and show astronomers how the universe began. It may be able to detect whether or not there are planets circling the nearby stars, and settle the debate as to whether our solar system is a rare, unique, or commonplace cosmic occurrence.

But although Galileo and the Space Telescope are exciting, ambitious projects, they are the only major science efforts that NASA is currently funded to undertake. At a total project cost of \$750 million, fifteen percent of which is being provided by the West Europeans, the Space Telescope is perhaps the biggest bargain in the history of space science.

Meanwhile, NASA's concentration on the shuttle has opened new opportunities both for the Agency itself and for would-be competitors, both domestic and foreign.

The government is committed to building four shuttles. *Columbia* has demonstrated the soundness of the design. *Challenger*, carried past President Reagan last July 4 atop a Boeing 747 on its way to Cape Canaveral, will be followed by *Discovery* and *Atlantis*.

Every cubic inch of payload capacity for these four shuttles has been assigned to users, through the next several years. Nearly half the payloads will be military; the Air Force is constructing its own shuttle launching facility at Vandenberg AFB in California. The remaining payload spaces will be split almost evenly between scientific and commercial payloads, such as communications satellites.

But there are many more commercial customers than the fleet of four shuttles can handle. Companies such as RCA, AT&T and Western Union want to orbit commsats. Oil companies want satellites that will search for natural resources. Johnson & Johnson is working on developing new pharmaceuticals based on zero-gravity chemistry. John Deere, the farm-machinery manufacturer, is working with NASA on zero-gravity metal processing.

Already some American firms, disappointed because they can't "get

aboard" the shuttle, have taken their satellites to the European Space Agency. ESA has developed a rocket booster, Ariane, and a multinational company, Arianespace, specifically to launch satellites at a price competitive with NASA's. Ariane is an expendable booster, like the Titans and Deltas that NASA is now phasing out. But as long as the shuttle cannot handle all its potential customers, and Arianespace's prices remain attractive, Ariane will be competing with NASA's shuttle.

Other competition is rearing its head in Texas and New Jersey. Space Services Inc., of Houston, had its first successful test launch in August from Matagordo Island, off the Gulf coast. SSI, with strong links to Houston's oil industry, plans to be launching satellites for profit in a few years.

Space Transportation Inc., of Princeton, NJ, has a more ambitious plan. Headed by Klaus Heiss, the econometrician who did an economic analysis of the shuttle for NASA in the mid-1970s, Space Transportation has proposed to the government to raise a billion dollars, which will be used to build a fifth shuttle — to be devoted entirely to commercial and industrial missions. One of the proposal's major financial backers is the Prudential Insurance Company.

When insurance companies such as Prudential and Aetna (which is a partner in the Satellite Business Systems Corp., together with IBM and Comsat Corp.) get into the space act, it is time to admit that space has a powerful business potential.

The initiation fees are steep. A billion dollars to build a shuttle. Seven hundred fifty million for a space telescope. A NASA budget of \$6.6 billion, slated for an increase to over \$7 billion in Fiscal Year 1984.

But consider the returns. Communications satellites alone are a billion-dollar business in the US, with more billions being made overseas. The entire "micro-chip revolution," from personal computers to industrial robots, has benefited mightily from space-generated technology. In 1981 alone, Americans bought \$9 billion worth of videogames — a commercial bonanza that began in the need to miniaturize electronic equipment for space missions.


Within the next five years, we will see private boosters putting satellites into orbit, for profit; exotic medicines manufactured aboard the space shuttle; the opening of a new era in astronomy as the Space Telescope turns its eye to the heavens; the Galileo probe on its way to Jupiter; and a report from distant Voyager II as it passes the planet Uranus, some two billion miles from Earth.

All this on a NASA budget that equals about one week's worth of spending by the Department of Defense, or roughly the cost of three offshore oil platforms. For the truth is that NASA's funding is among the smallest items in the federal budget. A few years ago, the Department of Health, Education and Welfare (now renamed Health and Human Ser-

vices) shamefacedly admitted that it had *lost* some five billion dollars in one year due to faulty accounting procedures. Americans spend more than the annual NASA budget on pizza each year, and more than ten times that amount on used cars.

As the space agency nears its twenty-fifth birthday, it once again finds itself beset with the problems caused by success. The shuttle is working well, which raises the thorny question of who will operate it in the future. Should NASA, which is essentially a research and development agency, become the operators of an orbital bus line? Should the shuttle be handed off to another governmental agency, or should private enterprise take over its operation? There are strong advocates of each position. Some have even suggested allowing the Air Force to run the entire shuttle program, both its military and civilian sides.

And what of the growing militarization of space? What role will NASA play vis-à-vis the Air Force's newly-created Space Command? Already the Air Force's space budget is bigger than NASA's, and the Reagan Administration is committed to increasing the military space budget by ten percent per year *over* the inflation rate.

The next twenty-five years will see wonders as diverse as the Space Telescope, permanent habitats in orbit, and the development of industries in space that will open up thousands of new jobs on the ground. The difference between Phase I of the space program and Phase II is that now NASA's work is beginning to have a direct, immediate, and perceptible impact on the national economy. The space program has come a long way, baby. But there's still an entire universe out there waiting to be explored and utilized. 

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A black and white illustration. On the right, a horse's head and neck are shown in profile, facing left. It has a detailed bridle with blinkers and a bit. The horse is looking towards a dark, arched doorway in the center. To the left of the doorway is a large, dark silhouette of a person, possibly a woman, standing in the doorway. The background is a light, textured surface. In the bottom right corner, there is a small, dark, rectangular inset showing a close-up of a horse's head, possibly the same horse, looking down. The overall style is that of a vintage magazine illustration.

**GANDY  
PLAYS  
THE  
PALACE**

by M. E.  
McMullen

Art:  
Frank  
Borth



*"My old grand-mere, were she here and had she thought of it, might have said: 'Don't you believe anything you hear and only half you see.'"*

*. . . William Claude Dunkenfield*

Harry had this little routine he did when he first walked on — little soft shoe, after the band breaks into *way down upon the da-de-de-dum*, and they throw a blue pin-spot on Harry up there dancing around, twirling with his arms straight out, light as a feather — this would be some strip joint in Philly, a place with eight bouncers, and you'd hear some catcalls, but mostly they didn't even pay attention at first. Like who wanted to watch some old rumdum fake a soft-shoe routine?

And the way he did his dance — half-serious, half-falling-down-on-his-ass — should've told them something, but mostly they never picked up on it. By the time he'd gone maybe a minute, you could see them starting to get restless, shifting around in their chairs a little, and Harry was right with it, little shuffle here, little shuffle there, and he knew just when to signal for the houselights.

Sometimes, there were only twelve people in the audience — three nights in Albany, then a one-nighter in Schenectady, and it was always the same: they either sat out there like bumps in the dark, or they started shouting things, with the special undertone of ugliness you find in joints. Harry danced, and smiled, and maybe ended with a back shuffle or a half-hearted flying scissors and a feigned split. Then the lights came up, and that's when they first saw the tank.

You see a tank, you figure it's some kind of escape act maybe, where they tie the guy up in a straight jacket, chain him and padlock the chain, then he's got two-and-a-half minutes to get out of the tank, which is filled with water, or else he drowns, and I've seen acts like that but mostly they're illusions. I even managed an act like that once: a Hungarian who thought he was another Harry Houdini. By the time they were putting the chains on him, he was already practically out of the straight jacket, then they put him in a steamer trunk and dropped him into a vat. It wasn't a bad act, but the Hungarian thought he should be playing bigger rooms so he fired me. When I first saw Harry Gandy, I thought it was another escape act. Most people do.

The tank had a plaque attached to it: **PROPERTY OF HARRY GANDY**. A stamp on the side said 'Heathrow'. It was about three by five by three-high, and after his dance, Harry walked upstage and took a big, exaggerated bow — which usually got him groans and boos — then he threw back his right hand, put his toe forward like a carnival barker, or, as the King was known to observe, — "like a ringmaster." The King, of course, had a thousand Gandy stories in him but none better than his imitation of Harry's opening spiel, as Harry, in his ringmaster's posture,

called out, "Ladieees and Gentlemen, I am Harry Gandy, the World's Greatest Evolutionary Mimic. I know that none of you knows what an evolutionary mimic is, any more than you appreciate an acceptable soft shoe when you see one, *which*, I regret to say, you have not as yet been given the opportunity to do — still, that experience remains for you! You are about to witness a most unusual event. It may appear to be a fatal situation but I assure you, it is not."

Drum roll.

"Too soon for the drum roll," Harry would say, holding up his hand. "What you see before you is an ordinary glass tank," Harry strolling over toward the ladder, "filled with a special solution consisting of primordial slime, coffee, free-neutron-emulsion and other ingredients whose names and properties I am not at liberty to divulge having learned them from the lips of a dying man — a monk in the region of northwest Rajputana who had sworn secrecy on the souls of a thousand sacred cows — " little tap dance up the first two steps of the ladder, back down again, and the houselights start to dim, and Harry says, "*Now* the drum roll," dancing up the ladder. "You are about to see, Ladieees and Gentlemen, a soft shoe with a different sort of finale." By this time the drunks at the bar, and even the strippers backstage, are craning their necks, and people are looking around poles, and the waiters have stopped, and everything is quiet, and the smoke is drifting up through the blue pin-spot as Harry does one more little move, a kind of half-toe-tap-shuffle-pass, and then he pulls off the little jumpsuit thing he was wearing and holds it out into the spot, which is now trained discreetly away from his nakedness, then he slides down into the slime and disappears.

"The first time *I* saw it," the King said, "he was almost booed off the stage because he didn't start to melt right away."

That right there was enough to make you wonder. Harry claimed he actually *melted* in the slime. You couldn't see him in there. The stuff was inky green and smelled to high Heaven, and Harry told everybody to stay away from the tank while his act was in progress — as a safety precaution, he said. He was doing three performances on Saturday in those days — two on Friday. He wouldn't work any other days. Said it was too tiring. The first time I saw it, he sloshed around in the tank for about five minutes, *then* he melted. It was a bunch of sailors, and they were about to tip over the tank when Harry melted. You should have seen that. One threw up and the rest ran out of the joint. I phoned Freddie Levine in New York and Freddie bought the act unseen. I've been in the business thirty-one years, and guys like Freddie Levine take my word. I told him he'd never seen anything like it. It gives you an idea of what kind of man Freddie Levine was, God rest his soul.

The King, of course, remembered it otherwise. Magicians, he claimed, had done things *like* Harry's act, and sometimes you saw things in

carnival sideshows, still, it wasn't the same. He spoke wistfully about it. Said it was compressing a dozen billion years into forty minutes.

"I told Freddie Levine I had an act to end all acts, and he said he didn't even want to hear about it. I could fill him in when I got to New York. He sent me a ticket, and one for Harry, but Harry wouldn't go. At first, he didn't think he needed a manager. Then I asked him if he wanted to play strip joints and fire traps the rest of his life, and he asked me who my connections were, and I told him, and we shook on ten per cent, but he still wouldn't go to New York. He told me to take care of it, so I did.

The King didn't care about that part of it, of course. He would sit on his folding chair with his legs crossed, black silk stockings and ridiculous silver shoes, with that long, bored look on his face — or maybe he would read a Racing Form, and try to choke down another cup of coffee so he could stay awake.

He'd heave and sigh and say: "Harry was happy on the Philadelphia-Buffalo circuit. He went to Florida every winter for a couple of weeks, made enough money to live on — he was stupid to go big time."

The King didn't like to think about it. He hated being king like Harry Gandy hated playing club fights as the opening attraction — or freak shows, or small rooms. The King was bored all the time, and so he talked about Harry Gandy and tried to imagine how bored Harry Gandy must have been, doing his act for a bunch of unappreciative slobs who had no idea what they were seeing. The King tended to identify with Harry Gandy, as if it doubled his capacity for enduring boredom — he hated being king because all he had to do was push a button, and somebody would bring him whatever he wanted. He'd get an evil grin, and walk over to his desk and push the button. In roughly three seconds, Randolph would be there in his nice dark suit. Randolph is the King's personal secretary. "Randolph," the King would say, "I want to know the name of the guy who killed his wife in front of three thousand people at the Hippodrome. He was a knife-thrower. He claimed it slipped, but the cops and the audience thought otherwise. *And*, find out if he's still alive, Randolph. If he is, I want him brought here so I can talk to him. If he's still in jail, find out how much it will cost to get him out."

Or the King would get a strange look on his face, and he'd say, "Time for a General Security Alert," and he'd push another little button on his desk. Sirens would go off everywhere, and you could hear men shouting, flying machines whirring around. The King would stand by the window picking his teeth, watching the bedlam.

I told him once: it might be bad having poison testers and bodyguards, but you're still king. All you have to do is push a button and you can have anything you want."

"Do you know what it proves?" he said.

"What?"

"Some people are never satisfied."

Like Harry Gandy.

All he ever wanted to do was play the Palace. He said it was because no act like his had ever gotten that far, and Harry had this thing where he had to prove his claim about being the world's greatest evolutionary mimic. We used to argue about it all the time. "How can you not be the greatest when you're the only one?" He didn't see it that way. Harry always said he wouldn't give up until he played the Palace.

"That's when we knew he had to be stopped," the Right Reverend J.C. Profitt said.

He'd set up a duck blind for his remote truck, in a parking lot on the ground of the International Bratwurst Festival where Harry was headlining, and he was going to broadcast the whole thing, live. Harry's tank was on a platform in the middle of the rodeo grounds, and there were two or three thousand people in the stands.

It was still in the days when they thought Harry was a freak act — everybody but the Right Reverend Profitt and his radio flock, who were convinced Harry was the devil. Profitt was trying to get the Queen on the phone for a live interview, but she wouldn't come to the phone, and so he had to content himself with describing what happened after Harry disappeared inside the tank. This was probably about four months before Harry played the Palace.

Harry was a little nervous before the show.

He got started a little late, and the green ooze didn't start forming in the tank until almost two o'clock. J.C. Profitt was curing a man of a fistula. Harry's cassette was blaring on the loudspeakers: **THE GREEN SLIME NOW FORMING IN THE TANK WILL GRADUALLY CONDENSE INTO TWO HELICES. THESE WILL APPEAR AS GELATINOUS FIBER.** Profitt interrupted his cure and started shouting, "A giant green tinkertoy! He's made himself into a giant green tinkertoy!" **WHAT YOU SEE HERE**, the tape blared, **IS THE FORMATION OF A TYPICAL AMINO ACID.**

"Jesus, God be praised," Profitt screamed so loud that he was getting feedback, a terrible, mind-bending screech, and engineers were stumbling out of his remote truck holding their ears, and everybody in the stands was looking over toward the parking lot — they missed Harry's next move.

**A WORKING MODEL OF A ROTIFER**, which J.C. Profitt called a seamonster. In this, the twin spirals abruptly transform themselves into a single football-shaped thing with long strands of green hair flowing off it like limbs, and he swims around that way for a minute or so, or maybe gets going around the edge of the tank like a motorcycle in a barrel. It usually gets their attention.

The next trick is introduced by Harry on the cassette while the band blows a fanfare — crowd buzzing like crazy by now as the rotifer has disappeared and a new shape begins to take over the tank — **WHAT YOU SEE NOW**, Harry's voice somewhat obscured by the crackling of the speakers, **IS MY IMPRESSION OF ONTOGENY RECAPITULATING PHYLOGENY** — drum roll — **WHAT YOU ARE ABOUT TO SEE IS POSSIBLE BECAUSE OF THE EXTREME TIME-DILATION EFFECTS PRODUCED BY THE PRESENCE, IN MY PRIMORDIAL SOLUTION, OF FREE NEUTRONS, A GREAT MANY MORE THAN YOU WOULD ORDINARILY EXPECT TO FIND. I AM ABLE TO ORGANIZE EVOLUTIONARY TRENDS AND COMPRESS WHAT MIGHT HAVE OTHERWISE TAKEN A LONG TIME INTO A VERY SHORT TIME** — Drummer's cue to break the drum roll — This is the new trick he's been saving for J.C. Profitt. The band has broken into "Happy Trails to You" as Harry comes suddenly out of the slime tank, a man on a horse waving his hat — which has the crowd silent in stunned disbelief, but Harry can't quite make it past the posterior of the horse, so what you have is Harry, trying to wave his hat, with the horse slowly drowning face-first back into the primordial ooze while his rear end is way up in the air — finally, the whole thing collapses back into the slime.

He told me after the show it was something he had to work on. Somebody was banging on the door of Harry's trailer saying that the Queen wanted to interview him over the radio. Wasn't that just like the Queen? Except Harry didn't believe it. He told them to tell her he was too sick to talk to her. He said his head felt like a watermelon. This time two of them came. They wanted to see Harry, so I let them in.

"Are you Mr. Gandy?"

Harry just looked at them.

"The Queen would like to ask you a couple of questions, Mr. Gandy, if you feel up to it." Another man came up the stairs and into the trailer. He was carrying a small piece of electronic equipment.

"Mr. Gandy?" It was the voice of the Queen coming out of the electronic equipment. The man was holding it away from him, like it was a lantern. "Can you hear me, Mr. Gandy?"

Harry was stretched out on the bed, facing them. Except for a towel around his middle, he was naked.

"Hello?" the Queen said.

Harry had his feet up on a pillow and his hands behind his head, and he was sound asleep. The Queen kept saying "Hello — ?" and then they lost the connection. When they got it back again, the Queen was telling them to wake Harry up, as nicely as possible. Then he was sitting up, clearing his throat — "I'm ok, I'm ok."

"Mr. Gandy?"

"Yes?"

"That was marvelous!"

"Thank you."

"Are you a magician, Mr. Gandy? An impressionist? A necromancer? That marvelous trick with the horse — what do you call that?"

"Roy Rogers and Trigger — except Trigger's tough. Today was the first time I ever tried it. Sort of an unprofessional finish there," Harry said.

"We thought it was part of the act," the Queen said. She was obviously enjoying herself. The Queen likes to be where things are going on. She's always been that way. "What's in the tank? Nobody seems to know."

"Cosmic dross."

"Cosmic dross?"

"Free neutrons, deoxyribonucleic acids, organic molecules, and about five dozen other things."

"Marvelous. Is it magic or technology, Mr. Gandy?"

"Magic?"

"You have detractors, Mr. Gandy — "

"I'm sure," Harry said.

"— who say that you are — *an illusionist*. Do you plead guilty? Before you answer, I think you should know we all think you're marvelous, and it doesn't matter to me if you're an illusionist or not. Some magicians, Mr. Gandy, make rabbits appear from hats, and some walk across hot coals, and some ride in limousines, and when you get down to it, *What isn't an illusion?*"

This brought a smattering of applause from everybody in the trailer except Harry, being one of those little observations the Queen gave for free in her conversations, and subject to the acknowledgement of applause, or, at least, murmuring and a shuffling of feet. "What is it, Mr. Gandy? Are you an illusionist?"

"I am the World's Greatest Evolutionary Mimic."

"I don't doubt it," the Queen said. "And the matter then is one of technology? I concede it. That is all tricks anyway, and I wouldn't dream of probing a professional secret. Good luck to you, Mr. Gandy."

"Good luck to you, Madame," Harry said.

You had to look at the whole thing from her perspective. Being queen wasn't easy. They expected her to know what everybody wanted and how to give it to them, and sometimes they wouldn't believe they wanted something no matter how many times she told them they did.

It wasn't easy deciding what they were allowed to watch and listen to, but it was the Queen's job. She got there by being a necromancer like Harry Gandy, and she always bounced back. The Queen knew the trick. All you had to do was see it happen first in your mind — then make it happen.

I tried to explain it to Harry that way.

"You and the Queen have been doing the same tricks for years, Harry. She tells them what to think: you tell them what to see."

"Stop trying to be a philosopher, Leo," Harry said. "You're a theatrical manager. Stick to what you are. There aren't many guys today making a living as philosophers. You get me booked into the Palace, Leo — for the right money." Everything for Harry was always the *right money*, except that Harry didn't care about money at all. He'd learned to live with a minimum supply, and he liked living that way.

"The King was the necromancer, Harry — I'll tell you something, you have to look at it from the King's point of view. He's the one who taught the Queen."

"The King's dead, how can I look at something from his point of view?"

"When he was *alive*, Harry — you're still dealing with her, and that's the same as dealing with him because she's learned all his tricks. I'm talking about getting you booked into the Palace, Harry. Don't think that just because she talked to you on the radio that she's automatically going to invite you to play a command performance. That's not the way it works. *Any* money is the right money for the Palace, Harry, and don't forget it."

"I played him once, you know."

"The King?"

"Tall, steel-blue eyes, erect — nice tufts of grey hair around the temples, and that rolling-thunder voice: nobody ever looked more like a king. He was a treacherous bastard, from what they say — started out as a disc jockey in Des Moines, Iowa. It's a famous story."

"You're like talking to a stone wall, Harry. I want to tell you something — The Queen needs a hot act right now. Three of her new shows were cancelled last week, and all she has on the drawing board are tap-dancing dolphin acts and more game shows like "Life and Death." She needs a hot act right now. Something different. The Queen won't just book you into the Palace. She'll have some angle, some controversy, some flap that will take the whole thing out of the ordinary. That's her style, Harry. She doesn't believe in technology or magic. She believes in ratings. Right now, J.C. Profitt is hot. He's signed on for two more on-the-air miracles this summer, and there's talk about a spectacular out of New York, like maybe he was going to try walking the East River: and I'm not talking about *across* it, I'm talking about up and down. Don't let her sic *him* on you. Don't underestimate her, Harry. She'll use you up like toothpaste and throw you away when she thinks you're done."

Harry'd look at me, after one of my little speeches, and he'd say something like: "You got a nice turn of phrase, Leo. You ought to be writing soap operas." Talking to Harry was like talking to a stone wall.

\*     \*     \*

Things were quiet for a while after the Bratwurst Festival. I went back to New York on business, and Harry got burned out and had to cancel a couple of small shows, and all we got were people wanting to sign us to debate J.C. Profitt in Yankee Stadium on the subject of Darwinism — usually in the public interest (which meant no money). I didn't even bother calling Harry before I turned them down.

Then it came:

TO HARRY GANDY C/O LEO DUNNEMAN, DUNNEMAN PRODUCTIONS, NEW YORK, NEW YORK. DEAR LEO: WARM REGARDS.

YOU ARE HEREBY COMMANDED TO PRESENT HARRY GANDY TO THIS COURT NINETY DAYS HENCE, TOGETHER WITH HIS TROUPE AND PROPS OF ENTERTAINMENT, WHERE HE WILL CONDUCT HIS SHOW FOR THE PLEASURE OF THE QUEEN IN HER PALACE.

I called Harry to tell him about it, and all he could say was, "What's the money?"

"The money doesn't matter, Harry, we're talking about playing the Palace. You've got three months to get something spectacular together. If you're a hit, it's a new ball game, Harry. No more car dealer conventions."

"What's the money?"

"I don't even know. If somebody offers you tickets to the Second Coming, Harry, you don't ask how good the seats are."

"That means the money's lousy, doesn't it, Leo?"

"One of her technical people called me this morning. They need to know some technical things. Maybe you and I can sit down with them for ten minutes and —"

"What technical things?"

"Something about colors — for the cameras and all that. We can get it straightened out in five min——"

"What about *colors*?"

"How should I know, Harry? The guy was talking about colors. He wanted to know what color your slime solution was — for some light meter check he'd be doing —"

"You tell him, Leo. I don't want to talk to anybody's technical people. Tell him the muck is green, and tell him I said it was because the free neutrons cause the light coming off it to be green-shifted. If he wants to know more than that, tell him it's a professional secret. If those bastards want to learn how to green-shift light, let 'em start from scratch like I did."

"This isn't Ted Mack we're dealing with here, Harry. This is the Queen. They want a little technical information. This is the big time, Harry, you got to bend a little."

"What's to bend? If it was that easy, Leo, everybody'd be doing it."

"And the Queen wants to meet you face to face — to talk about promotions. She seems to think this thing has a great chance if it's promoted right."

"What kind of promotions?"

"She didn't say."

We didn't know what to expect getting off the plane in New York and sliding into the Queen's personal limousine, which was waiting for us at the airport. There wasn't a peep about Harry in any of the trade journals, and nobody gave us a second look in the elevators or in the waiting room of the Queen's New York offices. Harry was nervous, and I was scared. She kept us waiting for about twenty minutes, then we were led through a labyrinth of plush, colorful offices, and into a large conference room with a long, gleaming oak table. The Queen was wearing huge silver earrings and a white silk lounging outfit that must have cost her fifteen grand. She looked just like her pictures. There were about fifteen people sitting around the table, and she introduced us to every single one of them and I forget all of their names, except one, Schmutz, which belonged to a large woman who never smiled the whole time Harry and I were there.

"How do you feel about hype, Mr. Gandy?" The Queen said. She'd put on her glasses and lowered her voice.

"Hype?"

"Building a public anticipation for your show with a media blitz."

"I suppose it has its place," Harry said. "I don't have much use for it myself."

This caused the Queen to smile.

"We are apparently dealing with a scientific matter here, Mr. Gandy — or so I am advised. It is my own feeling that a hype-blitz may not necessarily be appropriate for such an event. A majority of people at this table feel otherwise. Mr. Dunneman has already expressed his feelings to me in a telephone conversation, and yours is the only opinion I don't know, Mr. Gandy. Mr. Dunneman and most of my associates feel that we should consider giving it an extensive publicity campaign. They think it would be the most effective way of assuring a large share of the viewing audience. What do you think, Mr. Gandy?"

"I guess it depends on how you look at it."

"Ordinarily, a Palace Special can expect to garner about forty-three percent. Mrs. Schmutz tells me that with the right kind of hard-core exposure, we might run that as high as forty-eight or forty-nine, and her point is well taken. Still, a great deal depends on the slant of the blitz. What is it exactly that you do, Mr. Gandy? Are you a freak show? A magic act? I know — you say you are the World's Greatest Evolutionary Mimic, but none of my staff seems to know precisely what that means. Don't misunderstand me, if the matter is truly scientific, I wouldn't exploit it as mere

theatre for the sake of five or six percentage points of rating — this would be a direct violation of one of my own programming edicts. I have no intention of repeating my mistake with the Reverend Dr. Profitt and his prime time religious miracles, Mr. Gandy. They have become a dismal failure in the ratings. People especially disbelieve miracles they can see with their own eyes, Mr. Gandy. They would rather watch nude mud-wallowing from Ramona Beach.”

She paused ever so easily.

“Which brings me to my point: I cannot slant the blitz until I know what I’m peddling, Mr. Gandy, and I don’t know what I’m peddling. If I can’t slant the blitz, then I can’t try for the extra percentage — it would be too big of a gamble — and doing it without a slant would be suicide — unless we let the word out that we had something spectacular but didn’t say what it was, but the problem with that is that too many people around the county have seen your act already, and all it would take would be a couple of well-placed bad reviews of one of your earlier performances, and we’d be blown out of the water, lucky to get thirty-five per cent. I don’t need any more disasters in prime time, Mr. Gandy. Until I know what I’m selling, I don’t know how to sell it. Simple enough. If there is a scientific explanation for it, then we’ll need to know what it is. If the explanation is mystical, fine! Magical, great! Nobody can tell me that but you, Mr. Gandy. Does that give you some appreciation of my position?”

Harry smiled. “The explanation is scientific, Madame, in part; and mystical — if you believe, as I do, that mysticism is merely another form of illusion. I have dressed the act in illusion, but the core of it you would have to call it scientific. Are you familiar with lightcones?”

“Lightcones?” The Queen shot a glance at one of her associates, a small Chinese man, who smiled and nodded.

“The neutrons, in sufficient quantity, have the effect of slowing the propagations of lightcones from the immediate vicinity of the slime tank,” — Chinese man smiling — “When the solution reaches its first stabilization, I’m speaking about — also, free neutrons drastically alter the speeds at which the necessary chemical reactions take place within the primordial solution itself. Once the material has reached its second stabilization, and I am sufficiently melted into it, my consciousness having been retained intact as a series of preprogrammed quantum exchanges, I am at what I call the *first critical stage* of the trick. My stage is set because I am propagating light at a vastly diminished rate — to all intents and purposes, I’m not propagating light at all during the first few nanoseconds of this first critical stage, because the free neutrons have *green-shifted* the light to center spectrum, and I appear dissolved in the slime, and the slime appears to be green. Also, I have learned by practice to organize the various molecular configurations by thinking about what I intend to become — ”

The Chinese man stopped smiling when he heard the word, just as Harry said he would. The man next to the Queen whispered in her ear, and then she said, "*Green-shifted?*"

"I've learned to green-shift light."

The Chinaman was chuckling.

"Because of the extreme time-dilation at the surface of the neutron solution, at the first critical stage, an ordinary evolutionary process, which might take a few hundred million years to develop fully, takes only a few seconds at the least, minutes at the most, depending on the complexity of the trick —"

"My advisors tell me that this is the sheerest nonsense, Mr. Gandy," the Queen said.

Harry smiled.

"A trick like Roy Rogers and Trigger might take two, two-and-a-half minutes to think through — you're dealing with two impressions instead of one, a great deal of borrowed mass from the solution, plus animal movements are clumsy and unnatural. First I'm confused about where I am, no sensory input at all — then I remember, and I start concentrating on whatever impression I'm going to do. Like with Roy Rogers and Trigger, I think about horses: how they developed from those little two-foot tall statuettes of prehistory. When I'm learning the trick, I hang around barns, feed the horses, groom them, get a feel for them. Then I think about that particular horse, gold, with that white mane — then I think about Roy Rogers sitting up there on top waving his hat."

"How do you evolve a hat — or one of those cowboy shirts? Or spurs?"

"I've never been real sure about that part of it," Harry said. He was standing looking out the window, picking his teeth. "The thoughts are represented by the quanta — somehow they signal the solution to form things from its chemical components, to fit the quanta patterns with counterpart green-shifted photon records of the event unfolding in space-time — the latter being what the audience ultimately sees."

The Chinaman was chuckling, shaking his head. Mrs. Schmutz was still scowling at Harry.

"My staff seems to think this is utter nonsense, Mr. Gandy," the Queen said.

"The question, Madame, is not whether it is utter nonsense. The question is: will people pay ten bucks a head to watch it?" Harry raised his eyebrow, gave her a little of that old vaudevillian's smile.

"We live in a technological time, Mr. Gandy. How's this? The discipline of evolutionary mimicry is not fully understood. Some people — The Right Reverend J. C. Profitt, for example — believe that it is a discipline founded in mysticism. Some, including its chief practitioner, believe that it is governed by natural law. *We challenge* you, Mr. Gandy. We challenge you to enlighten us with your performance. If what you do

is science for the sake of entertainment, then entertain us if you must, but, above all, enlighten us. However you do it, let it be for more than Roy Rogers and Trigger. We'll let the public decide if you've succeeded. We'll publish a challenge, and your acceptance — you *do* accept, Mr. Gandy?"

"I accept, Madame." Harry was giving her more eyebrow.

"A man with your capabilities could do no less, Mr. Gandy — and that will be our slant on the hype, gentlemen. I'm looking forward to this, Mr. Gandy — was there anything else?"

There was nothing else.

Harry said you had to view the world in a radically different way if you wanted to be an evolutionary mimic. When we got to the Palace, I saw what he meant. Whoever designed it loved auditoriums in a way no ordinary person could ever hope to understand, and his translation of that love was the most acoustically and visually perfect arena ever devised by man.

The official cost figures were never released to the public. Several authoritative estimates are available, and the most authoritative of those places the cost of the Palace at an amount equal to nineteen per cent of the national debt; and if you ever saw it, five minutes before a show when it's filled with people and that vital hush has fallen over it, and the flashbulbs are popping, and everybody is rattled with anticipation, you would say the money was well-spent.

More people involve themselves with watching a Palace show than any other prime time activity except sex — yet the cameras are up and out of sight, and everything else is tucked away, and the openness of the place imparts a loneliness to it. The light and sound are all such that it's impossible not to be mesmerized, and you have no sense that anybody but you is watching — in fact, you're convinced of it, and the whole thing, for me, was a very strange experience.

Harry's tank was in the middle of a ball of light and Harry was standing next to it, hidden from the cameras by a Japanese screen. He was wearing a new tuxedo.

At exactly eight o'clock, the spotlights dropped to the Queen's Royal Box, and she stood, and when the audience had quieted down, gave her little speech about the challenge, as if all the hype hadn't been enough. Then she introduced The Right Reverend J.C. Profit, whose views on matters of evolution and the Divine Creation were well known, then the Chinaman, whose views on the scientific feasibility of evolutionary mimicry were well publicized, and when everything was good and charged, she raised her hand, then gestured toward the stage and said, "Ladies and Gentlemen — The World's Greatest Evolutionary Mimic — Harry Gandy!"

More applause, spotlights following the Queen's eyes to the center

stage where Harry bounds out, gingerly, waving to the audience. The Queen has remained standing in the custom of the command performance, and Harry, as is the custom, bows to her, and lifts just a glimmer of a smile when she returns the bow and eases into her seat.

Houselights down, blue pin-spot on Harry, a full symphony orchestra glides easily into view on risers, playing *Limehouse Blues* which is Harry's favorite song, while Harry begins the first dips of his old soft shoe and starts to straw hat and cane it up the ladder. All the blue light makes it look like he's suspended inside a water bubble, and Harry, off the ladder now and standing in the active cone of an invisible boom mike, says, "We, you and I, all of us, are made of stuff. The odds against us being here together as the precisely indicated combination of stuff we were meant to be, are incalculably high — yet here we are. And, as long as we are, I'd like to do a few impressions for you."

With that, the lights drop altogether, and when they come up again, Harry is poised above the tank. He lifts an eyebrow and four kettle players begin a slow, rumbling drum roll. "Ladies and gentlemen," Harry says as he slides feet first into the muck, "a little sample of life's Dionysian dance." Then he's gone, and the cameras cut away for a commercial.

When they come back, Harry's tank is bathed in pure emerald light, and everybody in the world not engaged in sleeping or sex is watching. First, Walt Whitman, a tattered old man by that time, up out of the slime reading from *Leaves of Grass* while the orchestra plays selections from the atonal music of Chester White, and the audience sits, spellbound, — then, still in the one-man show tradition, a giant Rhea, flopping around, beating its wings against the glass while the audience gasps in disbelief — then a politician, a rock singer and Mickey Mouse, with the music going like crazy to keep up, and a new, more spectacular lighting arrangement every two minutes — and after an hour, the audience is in a state of continuous appreciation and the applause rises and falls with each new trick, like surf pounding, and the Queen is standing, applauding and cheering with the rest of them when the tank finally settles down into a pre-finale quietude. And there is another commercial break.

Like everybody else, she sits and watches as Harry comes once more up from the green slime, and, this time, climbs out of the tank, down the ladder, still a shadow, and then the lights are up, and there he is, tall and straight, steel-blue eyes, and those unmistakable tufts of grey at the temples — he is there, clear and sure, the way he was before he got sick and old, and died, and the Queen stands, for an instant, as if to protest, then smiles, unnoticed, and begins to cheer and clap with the rest.

The audience is standing, and there is tumultuous joy at the prospect of what has happened, and they believe it. They believe Harry Gandy is lost in the tank forever, and no amount of scientific persuasion could convince them otherwise.

He walks briskly down the stairs to greet her, that tall, erect figure, and with a perfectly fitted tuxedo three sizes larger than Gandy's own, and the Queen knows that somewhere upstairs, fifty thousand telephone calls are flashing on the boards with people wanting to know what they have just seen, and the ovation takes on new energy with every step he takes toward the Royal Box, spotlights following him.

The rules forbid it, of course — to approach her without leave that way — but the Queen cannot stop it, and when she looks around, she sees nobody has noticed the breach of etiquette, if that's what it is.

When he gets to the Royal Box, he smiles, bores into her with his royal blue eyes, and leans near her to whisper, so that only the Queen out of all the world can hear — I'm too far away to read his lips, and with the lights and excitement, can't even see his face, but I know what he says because he told me he would: "*King me, Madame,*" — with that old vaudevillian's charm. And there is nothing for the Queen to do but smile.



## CARTOON



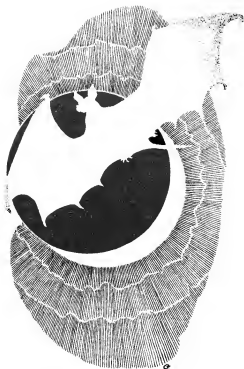
**William Rotsler**

## CARTOON



**Alexis Gilliland**

**TRADITIONS**  
by Eric G. Iverson  
art: George Barr



*Eric G. Iverson is an expert in Byzantine history and, apparently, the more technical aspects of being a vampire.*

The noble families of the Duchy of Strymon have their own traditions, centuries old. The barons of Kypros eat no mutton. The counts of Geta marry — and divorce — at the church of Mistra, though the Pechenegs left it a tumbledown ruin when they sacked Mistra two hundred years before. The chevaliers of Lazica like boys (how there get to be more chevaliers of Lazica is widely wondered; their wives, it is said, know). And a vampire always kills the counts of Sirmion.

For generations no one, including the counts, gave the matter much thought. They were usually allowed to live to a ripe age, and it was an easier death than most. But the end met by Constans, the twelfth count, changed all that. The vampire caught him with his tights down in the garderobe of Castle Sirmion, and drained him dry.

The thing could not be hushed up; the fiend struck during an evening feast poor Constans was giving for his neighbors. Valerian, a wandering scholar on his way to the ducal court, had been shifting from foot to foot in front of the locked garderobe door before the baron of Rashka, driven by a bursting bladder, kicked it down. "Oh, dear me, how most extremely unfortunate," Valerian exclaimed when he saw the husk that had been Constans.

As he showed at the door, Rashka was more direct. "Scratch another one!" he cried as he staggered back to the dining-hall. He was very drunk, but many people thought the remark in poor taste.

Constans's grown son Manes vowed revenge for his father. The situation had become worse than dangerous for him now; it was embarrassing. "Traditions have a start," he declared, "and they can have an end." The thought shocked his neighbors, but he went ahead with his vampire-hunt regardless. "The beast shall not have me, nor my own little son either," he said, shaking his fist in the air.

Valerian begged leave to accompany him on his hunt. "For," he said, "the vampire being a cacodaemon of greatest rarity, such an opportunity to add to knowledge as to its haunts and habits arises all too seldom; a tome concerning itself with such would surely be a desideratum of highest import —"

Manes rolled his eyes, "Come if you care to, but leave your bag of wind behind."

Armed with a great sharp stake, he prowled every ruined tower and fort in his county; there were a great many of these, since the Pechenegs' raid had gone through the land in his five-times-great-grandfather's time. In a dank pile of gray masonry atop a lonely hill, he found a coffin of sandalwood lined with satin, with silken sheets and a pillow of softest goose-down. Some of the art objects around it dated back centuries.

He burned everything. The sweet smell of sandalwood smoke filled the deserted fort. "Let the monster's sleep be hard," he grated, "and let it sleep while it may — soon enough it will sleep forever!"

If he noticed that Valerian came away from the place with a golden saltcellar he had not had when he got there, he said nothing. After that the scholar was less eager to go a-hunting.

A driven man, Manes searched on. He found more of the vampire's lairs, though the first remained the most splendid. Every one saw the torch. The last couple showed signs of hasty preparation, as though his quarry had had to set them up after his scouring of the county began.

"Ha!" he said. "The trail grows warm!"

At last every ruin had been searched and, at need, cleansed. The vampire was uncaught, the count undaunted. "I have routed it from its accustomed haunts," he said, "and now it must lurk by day in some moldy hole in the ground, in swamp or forest. It cannot be well hidden; by the gods, were it transparent as air it could not be well enough hidden from me!"

He stormed into the woods with the best hunters — and poachers too — of the county. "This is madness," they muttered among themselves. "How can an undead flitterer leave a trail?" But their mutters stopped when they came across a stag with punctured throat. They beat the bushes for a mile around it, but found nothing. Manes swore in frustrated rage.

He swore again a few days later, when they happened on a crudely dug hollow in the side of a bank. Greatly daring, he watched it all the night through, but the vampire did not return.

When full moon came, it rose dark and ruddy in total eclipse. "A good omen, that," Manes said. "No doubt it foretells that the one who shed so much blood will soon be extinguished himself."

"I fear I must beg to differ with you," Valerian told him. "You see, lunar and solar eclipses can only take place when the full moon or the new moon (respectively, of course, you must understand) is at one of the nodes where the plane of the lunar path through the heavens intersects the ecliptic. As the full moon has met that condition, there is a strong likelihood that in two weeks the new moon shall also be at the node, which would portend —"

But Manes was already walking away, tapping the side of his head with a forefinger. "Miserable twit, thinks he knows omens," he muttered. "I've seen better heads on a beer than that one has, with his yattering about nodes. As if I knew what a node was, or cared!"

He searched on through the forests day after day, carrying his stake in both hands like a spear. Once each section was examined, he checked it off on a parchment map of the county that hung over his bed. He had been over most of the easier terrain and was plunging into harsher country, second-growth land filled with tangles and brambles and bushes.

He came down into the castle forecourt and was outraged to discover Valerian giving his huntsmen a dose of the same drivel he had had to

listen to a couple of weeks before. They were not grasping more than one word in three, but they had caught enough to be frightened. "It might be wiser to stay home today, sir," the chief huntsman said nervously, "if the gentleman here has the right of it. The day don't seem to augur well." Behind him, the rest of the hunters nodded.

Manes stared at them in fury. "Well, aren't you a load of worthless milksops?" he roared. "Stay home, then — what do I need you for? With the sun in the sky, the vampire's no more than a corpse. And if I should run into trouble, I'll bloody well take this hero along to protect me." He seized Valerian's skinny arm with a grip that made the scholar yelp.


The stretch of country he had chosen to search was particularly bad. The light came dim and patchy through the tight cover of leaves overhead, shining here and there on the damp, mossy ground in little crescents. After the third thornbush scratched the count's face, he almost decided the vampire was welcome to the wretched place. The only thing that kept him going was Valerian's little whimpers as mosquitoes scored.

Then Manes sucked in his breath sharply — that was no shadow, there not far from the edge of a little clearing; that was a black cape! He let out a bellow of triumph. Almost he felt pity as he started across the open space, the stake raised high over his head. He had run the vampire a savage hunt. Endlessly harassed, driven from place to place, it had scarcely bothered to dig itself a daygrave, making do with its cape, sadly threadbare now, as cover against the fatal sunlight.

Not, the count thought, that there was much sunlight in this gloomy wood. Nor even in the clearing — he looked up, startled, as the moon slid across the last thin edge of the sun's disc. The ghostly radiance of the corona gleamed forth. The stars came out. A hush fell, as if of night.

Valerian broke it. "There, do you see? Exactly the phenomenon to which I referred. It —"

Manes, though, was not listening. He watched in sudden dismay as the cape stirred. Naked and grinning, the vampire rose. Even in the brief darkness of the eclipse, its fangs gleamed. "Close, my friends," it said, "but not close enough." It sprang forward.

The noble families of the Duchy of Strymon have their traditions, centuries old. The fourteenth count of Sirmion is only six, but he knows what to expect. 

# CYBERPUNK

by Bruce Bethke

art: Bob Walters

*Bruce Bethke lives in St. Paul MN with his wife Nancy and an infant daughter, Emily. Beneath the exterior of a businessman and computer professional there beats the heart of an artist. His avocation is computer/electronic music. And now, here is his first published story. We wonder — what would his talents in combination produce?*

The snoozer went off at seven and I was out of my sleepsack, powered up, and on-line in nanos. That's as far as I got. Soon's I booted and got CRACKERS BUDDY BOO BER on the tube I shut down *fast*. Damn! Rayno had been on line before me, like always, and that message meant somebody else had gotten into our Net — and *that* meant trouble by the busload! I couldn't do anything more on term, so I zipped into my jumper, combed my hair, and went downstairs.

Mom and Dad were at breakfast when I slid into the kitchen. "Good Morning, Mikey!" said Mom with a smile. "You were up so late last night I thought I wouldn't see you before you caught your bus."

"Had a tough program to crack," I said.

"Well," she said, "now you can sit down and have a decent breakfast." She turned around to pull some Sara Lees out of the microwave and plunk them down on the table.

"If you'd do your schoolwork when you're supposed to you wouldn't have to stay up all night," growled Dad from behind his caffix and faxsheet. I sloshed some juice in a glass and poured it down, stuffed a Sara Lee into my mouth, and stood to go.

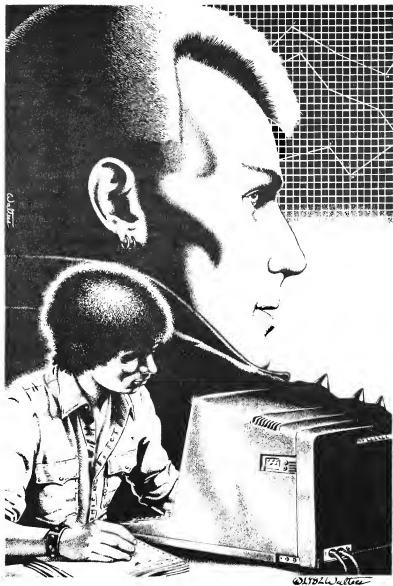
"What?" asked Mom. "That's all the breakfast you're going to have?"

"Haven't got time," I said. "I gotta get to school early to see if the program checks." Dad growled something more and Mom spoke to quiet him, but I didn't hear much 'cause I was out the door.

I caught the transys for school, just in case they were watching. Two blocks down the line I got off and transferred going back the other way, and a coupla transfers later I wound up whipping into Buddy's All-Night Burgers. Rayno was in our booth, glaring into his caffix. It was 7:55 and I'd beat Georgie and Lisa there.

"What's on line?" I asked as I dropped into my seat, across from Rayno. He just looked up at me through his eyebrows and I knew better than to ask again.

At eight Lisa came in. Lisa is Rayno's girl, or at least she hopes she is. I can see why: Rayno's seventeen — two years older than the rest of us —



he wears flash plastic and his hair in The Wedge (Dad blew a chip when I said I wanted my hair cut like that) and he's so cool he won't even touch her, even when she's begging for it. She plunked down in her seat next to Rayno and he didn't blink.

Georgie still wasn't there at 8:05. Rayno checked his watch again, then finally looked up from his caffix. "The compiler's been cracked," he said. Lisa and I both swore. We'd worked up our own little code to keep our Net private. I mean, our Olders would just blow *boards* if they ever found out what we were *really* up to. And now somebody'd broken our code.

"Georgie's old man?" I asked.

"Looks that way." I swore again. Georgie and I started the Net by linking our smartterms with some stuff we stored in his old man's home business system. Now my Dad wouldn't know an ophys if he crashed on one, but Georgie's old man — he's a *greentooth*. A tech-type. He'd found one of ours once before and tried to take it apart to see what it did. We'd just skinned out that time.

"Any idea how far in he got?" Lisa asked. Rayno looked through her, at the front door. Georgie'd just come in.

"We're gonna find out," Rayno said.

Georgie was coming in smiling, but when he saw Rayno's eyes he sat down next to me like the seat was booby-trapped.

"Good Morning Georgie," said Rayno, smiling like a shark.

"I didn't glitch!" Georgie whined. "I didn't tell him a thing!"

"Then how the Hell did he do it?"

"You know how he is, he's weird! He likes puzzles!" Georgie looked to me for backup. "That's how come I was late. He was trying to weasel me, but I didn't tell him a thing! I think he only got it partway open. He didn't ask about the Net!"

Rayno actually sat back, pointed at us all, and smiled. "You kids just don't know how *lucky* you are. I was in the Net last night and flagged somebody who didn't know the secures was poking Georgie's compiler. I made some changes. By the time your old man figures them out, well. . ."

I sighed relief. See what I mean about being cool? Rayno had us outlooped all the time!

Rayno slammed his fist down on the table. "But *Dammit* Georgie, you gotta keep a closer watch on him!"

Then Rayno smiled and bought us all drinks and pie all the way around. Lisa had a cherry Coke, and Georgie and I had caffix just like Rayno. God, that stuff tastes awful! The cups were cleared away, and Rayno unzipped his jumper and reached inside.

"Now kids," he said quietly, "it's time for some serious fun." He whipped out his microterm. "School's off!"

I still drop a bit when I see the microterm — Geez, it's a beauty! It's a Zeilemann Nova 300, but we've spent so much time reworking it, it's

practically custom from the motherboard up. Hi-baud, rammed, rommed, ported, with the wafer display folds down to about the size of a vid-cassette; I'd give an ear to have one like it. We'd used Georgie's old man's chipburner to tuck some special tricks in ROM and there wasn't a system in CityNet it couldn't talk to.

Rayno ordered up a smartcab and we piled out of Buddy's. No more riding the transys for us, we were going in style! We charged the smartcab off to some law company and cruised all over Eastside.

Riding the boulevards got stale after awhile, so we rerouted to the library. We do a lot of our fun at the library, 'cause nobody ever bothers us there. Nobody ever *goes* there. We sent the smartcab, still on the law company account, off to Westside. Getting past the guards and the librarians was just a matter of flashing some ID and then we zipped off into the stacks.

Now, you've got to ID away your life to get on the libsys terms — which isn't worth half a scare when your ID is all fudged like our is — and they watch real careful. But they move their terms around a lot, so they've got ports on line all over the building. We found an unused port, and me and Georgie kept watch while Rayno plugged in his microterm and got on line.

"Get me into the Net," he said, handing me the term. We don't have a stored opsys yet for Netting, so Rayno gives me the fast and tricky jobs.

Through the dataphones I got us out of the libsys and into CityNet. Now, Olders will never understand. They still think a computer has got to be a brain in a single box. I can get the same results with opsys stored in a hundred places, once I tie them together. Nearly every computer has got a dataphone port, CityNet is a *great* linking system, and Rayno's microterm has the smarts to do the job clean and fast so nobody flags on us. I pulled the compiler out of Georgie's old man's computer and got into our Net. Then I handed the term back to Rayno.

"Well, let's do some fun. Any requests?" Georgie wanted something to get even with his old man, and I had a new routine cooking, but Lisa's eyes lit up 'cause Rayno handed the term to her, first.

"I wanna burn Lewis," she said.

"Oh fritz!" Georgie complained. "You did that *last* week!"

"Well, he gave me another F on a theme."

"I never get F's. If you'd *read* books once in a —"

"Georgie," Rayno said softly, "Lisa's on line." That settled that. Lisa's eyes were absolutely glowing.

Lisa got back into CityNet and charged a couple hundred overdue books to Lewis's libsys account. Then she ordered a complete faxsheet of *Encyclopedia Britannica* printed out at his office. I got next turn.

Georgie and Lisa kept watch while I accessed. Rayno was looking over my shoulder. "Something new this week?"

"Airline reservations. I was with my Dad two weeks ago when he set up a business trip, and I flagged on maybe getting some fun. I scanned the ticket clerk real careful and picked up the access code."

"Okay, show me what you can do."

Accessing was so easy that I just wiped a couple of reservations first; to see if there were any bells and whistles.

None. No checks, no lockwords, no confirm codes. I erased a couple dozen people without crashing down or locking up. "Geez," I said, "There's no deep secures at all!"

"I been telling you. Olders are even dumber than they look. Georgie? Lisa? C'mon over here and see what we're running!"

Georgie was real curious and asked a lot of questions, but Lisa just looked bored and snapped her gum and tried to stand closer to Rayno. Then Rayno said, "Time to get off Sesame Street. Purge a flight."

I did. It was simple as a save. I punched a few keys, entered, and an entire plane disappeared from all the reservation files. Boy, they'd be surprised when they showed up at the airport. I started purging down the line, but Rayno interrupted.

"Maybe there's no bells and whistles, but wipe out a whole block of flights and it'll stand out. Watch this." He took the term from me and cooked up a routine in RAM to do a global and wipe out every flight that departed at an :07 for the next year. "Now that's how you do these things without waving a flag."

"That's sharp," Georgie chipped in, to me. "Mike, you're a genius! Where do you get these ideas?" Rayno got a real funny look in his eyes.

"My turn," Rayno said, exiting the airline system.

"What's next in the stack?" Lisa asked him.

"Yeah, I mean, after garbaging the airlines . . ." Georgie didn't realize he was supposed to shut up.

"Georgie! Mike!" Rayno hissed. "Keep watch!" Soft, he added, "It's time for The Big One."

"You sure?" I asked. "Rayno, I don't think we're ready."

"We're ready."

Georgie got whiney. "We're gonna get in *big* trouble —"

"Wimp," spat Rayno. Georgie shut up.

We'd been working on The Big One for over two months, but I still didn't feel real solid about it. It *almost* made a clean if/then/else; if The Big One worked/*then* we'd be rich/*else* . . . it was the *else* I didn't have down.

Georgie and me scanned while Rayno got down to business. He got back into CityNet, called the cracker ops out of OurNet, and poked it into Merchant's Bank & Trust. I'd gotten into them the hard way, but never messed with their accounts; just did it to see if I could do it. My data'd been sitting in their system for about three weeks now and

nobody'd noticed. Rayno thought it would be really funny to use one bank computer to crack the secures on other bank computers.

While he was peeking and poking I heard walking nearby and took a closer look. It was just some old waster looking for a quiet place to sleep. Rayno was finished linking by the time I got back. "Okay kids," he said, "this is it." He looked around to make sure we were all watching him, then held up the term and stabbed the RETURN key. That was it. I stared hard at the display, waiting to see what *else* was gonna be. Rayno figured it'd take about ninety seconds.

The Big One, y'see, was Rayno's idea. He'd heard about some kids in Sherman Oaks who almost got away with a five million dollar electronic fund transfer; they hadn't hit a hangup moving the five mil around until they tried to dump it into a personal savings account with a \$40 balance. That's when all the flags went up.

Rayno's cool; Rayno's smart. We weren't going to be greedy, we were just going to EFT fifty K. And it wasn't going to look real strange, 'cause it got strained through some legitimate accounts before we used it to open twenty dummies.

If it worked.

The display blanked, flickered, and showed: **TRANSACTION COMPLETED • HAVE A NICE DAY •** I started to shout, but remembered I was in a library. Georgie looked less terrified. Lisa looked like she was going to attack Rayno.

Rayno just cracked his little half smile, and started exiting. "Funtime's over, kids."

"I didn't get a turn," Georgie mumbled.

Rayno was out of all the nets and powering down. He turned, slow, and looked at Georgie through those eyebrows of his. "*You* are still on The List."

Georgie swallowed it 'cause there was nothing else he could do. Rayno folded up the microterm and tucked it back inside his jumper.

We got a smartcab outside the library and went off to someplace Lisa picked for lunch. Georgie got this idea about garbaging up the smartcab's brain so the next customer would have a real state fair ride, but Rayno wouldn't let him do it. Rayno didn't talk to him during lunch, either.

After lunch I talked them into heading up to Martin's Micros. That's one of my favorite places to hang out. Martin's the only Older I know who can really work a computer without blowing out his headchips, and he never talks down to me, and he never tells me to keep my hands off anything. In fact, Martin's been real happy to see all of us, ever since Rayno bought that \$3000 vidgraphics art animation package for Lisa's birthday.

Martin was sitting at his term when we came in. "Oh, hi Mike! Rayno! Lisa! Georgie!" We all nodded. "Nice to see you again. What can I do for

you today?"

"Just looking," Rayno said.

"Well, that's free." Martin turned back to his term and punched a few more IN keys. "Damn!" he said to the term.

"What's the problem?" Lisa asked.

"The problem is *me*," Martin said. "I got this software package I'm supposed to be writing, but it keeps bombing out and I don't know what's wrong."

Rayno asked, "What's it supposed to do?"

"Oh, it's a real estate system. Y'know, the whole future-values-in-current-dollars bit. Depreciation, inflation, amortization, tax credits —"

"Put that in our lang," Rayno said. "What numbers crunch?"

Martin started to explain, and Rayno said to me, "This looks like your kind of work." Martin hauled his three hundred pounds of fat out of the chair, and looked relieved as I dropped down in front of the term. I scanned the parameters, looked over Martin's program, and processed a bit. Martin'd only made a few mistakes. Anybody could have. I dumped Martin's program and started loading the right one in off the top of my head.

"Will you look at that?" Martin said.

I didn't answer 'cause I was thinking in assembly. In ten minutes I had it in, compiled, and running test sets. It worked perfect, of course.

"I just can't believe you kids," Martin said. "You can program easier than I can talk."

"Nothing to it," I said.

"Maybe not for you. I knew a kid grew up speaking Arabic, used to say the same thing." He shook his head, tugged his beard, looked me in the face, and smiled. "Anyhow, thanks loads, Mike. I don't know how to . . ." He snapped his fingers. "Say, I just got something in the other day, I bet you'd be really interested in." He took me over to the display case, pulled it out, and set it on the counter. "The latest word in microterms. The Zeilemann Starfire 600."

I dropped a bit! Then I balled up enough to touch it. I flipped up the wafer display, ran my fingers over the touch pads, and I just *wanted* it so bad! "It's smart," Martin said. "Rammed, rommed, and ported."

Rayno was looking at the specs with that cold look in his eye. "My 300 is still faster," he said.

"It should be," Martin said. "You customized it half to death. But the 600 is nearly as fast, and it's stock, and it lists for \$1400. I figure you must have spent nearly 3K upgrading yours."

"Can I try it out?" I asked. Martin plugged me into his system, and I booted and got on line. It worked great! Quiet, accurate; so maybe it wasn't as fast as Rayno's — I couldn't tell the difference. "Rayno, this thing is the max!" I looked at Martin. "Can we work out some kind

of. . . ?” Martin looked back to his terminal, where the real estate program was still running tests without a glitch.

“I been thinking about that, Mike. You’re a minor, so I can’t legally employ you.” He tugged on his beard and rolled his tongue around his mouth. “But I’m hitting that real estate client for some pretty heavy bread on consulting fees, and it doesn’t seem real fair to me that you . . . Tell you what. Maybe I can’t hire you, but I sure can buy software you write. You be my consultant on, oh . . . seven more projects like this, and we’ll call it a deal? Sound okay to you?”

Before I could shout yes, Rayno pushed in between me and Martin. “I’ll buy it. List.” He pulled out a charge card from his jumper pocket. Martin’s jaw dropped. “Well, what’re you waiting for? My plastic’s good.”

“List? But I owe Mike one,” Martin protested.

“List. You don’t owe us nothing.”

Martin swallowed. “Okay Rayno.” He took the card and ran a cred-check on it. “It’s clean,” Martin said, surprised. He punched up the sale and started laughing. “I don’t know *where* you kids get this kind of money!”

“We rob banks,” Rayno said. Martin laughed, and Rayno laughed, and we all laughed. Rayno picked up the term and walked out of the store. As soon as we got outside he handed it to me.

“Thanks Rayno, but . . . but I coulda made the deal myself.”

“Happy Birthday, Mike.”

“Rayno, my birthday is in August.”

“Let’s get one thing straight. You work for *me*.”

It was near school endtime, so we routed back to Buddy’s. On the way, in the smartcab, Georgie took my Starfire, gently opened the case, and scanned the boards. “We could double the baud speed real easy.”

“Leave it stock,” Rayno said.

We split up at Buddy’s, and I took the transys home. I was lucky, ’cause Mom and Dad weren’t home and I could zip right upstairs and hide the Starfire in my closet. I wish I had cool parents like Rayno does. They never ask him any dumb questions.

Mom came home at her usual time, and asked how school was. I didn’t have to say much, ’cause just then the stove said dinner was ready and she started setting the table. Dad came in five minutes later and we started eating.

We got the phone call halfway through dinner. I was the one who jumped up and answered it. It was Georgie’s old man, and he wanted to talk to my Dad. I gave him the phone and tried to overhear, but he took it in the next room and talked real quiet. I got unhungry. I never liked tofu, anyway.

Dad didn’t stay quiet for long. “He *what*?! Well thank you for telling

me! I'm going to get to the bottom of this right now!" He hung up.

"Who was that, David?" Mom asked.

"That was Mr. Hansen. Georgie's father. Mike and Georgie were hanging around with that punk Rayno again!" He snapped around to look at me. I'd almost made it out the kitchen door. "Michael! Were you in school today?"

I tried to talk cool. I think the tofu had my throat all clogged up. "Yeah . . . yeah, I was."

"Then how come Mr. Hansen saw you coming out of the downtown library?"

I was stuck. "I — I was down there doing some special research."

"For what class? C'mon Michael, what were you studying?"

It was too many inputs. I was locking up.

"David," Mom said, "Aren't you being a bit hasty? I'm sure there's a good explanation."

"Martha, Mr. Hansen found something in his computer that Georgie and Michael put there. He thinks they've been messing with banks."

"Our Mikey? It must be some kind of bad joke."

"You don't know how serious this is! Michael Arthur Harris! What have you been doing sitting up all night with that terminal? What was that system in Hansen's computer? Answer me! What have you been doing?!"

My eyes felt hot. "None of your business! Keep your nose out of things you'll never understand, you obsolete old relic!"

"That *does* it! I don't know what's wrong with you damn kids, but I know that *thing* isn't helping!" He stormed up to my room. I tried to get ahead of him all the way up the steps and just got my hands stepped on. Mom came fluttering up behind as he yanked all the plugs on my terminal.

"Now David," Mom said. "Don't you think you're being a bit harsh? He needs that for his homework, don't you, Mikey?"

"You can't make excuses for him this time, Martha! I mean it! This goes in the basement, and tomorrow I'm calling the cable company and getting his line ripped out! If he has anything to do on computer he can damn well use the terminal in the den, where I can watch him!" He stomped out, carrying my smarterm. I slammed the door and locked it. "Go ahead and sulk! It won't do you any good!"

I threw some pillows around 'til I didn't feel like breaking anything anymore, then I hauled the Starfire out of the closet. I'd watched over Dad's shoulders enough to know his account numbers and access codes, so I got on line and got down to business. I was finished in half an hour.

I tied into Dad's terminal. He was using it, like I figured he would be, scanning school records. Fine. He wouldn't find out anything; we'd figured out how to fix school records months ago. I crashed in and gave him a new message on his vid display.

"Dad," it said, "there's going to be some changes around here."

It took a few seconds to sink in. I got up and made sure the door was locked real solid. I still got half a scare when he came pounding up the stairs, though. I didn't know he could be so loud.

"MICHAEL!!" He slammed into the door. "Open this! Now!"

"No."

"If you don't open this door before I count to ten, I'm going to bust it down! One!"

"Before you do that —"

"Two!"

"Better call your bank!"

"Three!"

"B320-5127-01R." That was his checking account access code. He silenced a couple seconds.

"Young man, I don't know what you think you're trying to pull —"

"I'm not trying anything. I did it already."

Mom came up the stairs and said, "What's going on, David?"

"Shut up, Martha!" He was talking real quiet, now. "What did you do, Michael?"

"Outlooped you. Disappeared you. Buried you."

"You mean, you got into the bank computer and *erased* my checking account?"

"Savings and mortgage on the condo, too."

"Oh my God . . ."

Mom said, "He's just angry, David. Give him time to cool off. Mikey, you wouldn't *really* do that, would you?"

"Then I accessed DynaRand," I said. "Wiped your job. Your pension. I got into your plastic, too."

"He couldn't have, David. Could he?"

"Michael!" He hit the door. "I'm going to wring your scrawny neck!"

"Wait!" I shouted back. "I copied all your files before I purged! There's a way to recover!"

He let up hammering on the door, and struggled to talk calm. "Give me the copies right now and I'll just forget that this happened."

"I can't. I mean, I did backups in other computers. And I secured the files and hid them where only I know how to access."

There was quiet. No, in a nano I realised it wasn't quiet, it was Mom and Dad talking real soft. I eared up to the door but all I caught was Mom saying 'why not?' and Dad saying, 'but what if he *is* telling the truth?'

"Okay Michael," Dad said at last. "What do you want?"

I locked up. It was an embarasser; what *did* I want? I hadn't thought that far ahead. Me, caught without a program! I dropped half a laugh, then tried to think. I mean, there was nothing they could get me I couldn't get myself, or with Rayno's help. Rayno! I wanted to get in touch

with him, is what I wanted. I'd pulled this whole thing off without Rayno!

I decided then it'd probably be better if my Olders didn't know about the Starfire, so I told Dad first thing I wanted was my smartterm back. It took a long time for him to clump down to the basement and get it. He stopped at his term in the den, first, to scan if I'd really purged him. He was real subdued when he brought my smartterm back up.

I kept processing, but by the time he got back I still hadn't come up with anything more than I wanted them to leave me alone and stop telling me what to do. I got the smartterm into my room without being pulped, locked the door, got on line, and gave Dad his job back. Then I tried to flag Rayno and Georgie, but couldn't, so I left messages for when they booted. I stayed up half the night playing a war, just to make sure Dad didn't try anything.

I booted and scanned first thing the next morning, but Rayno and Georgie still hadn't come on. So I went down and had an utter silent breakfast and sent Mom and Dad off to work. I offed school and spent the whole day finishing the war and working on some tricks and treats programs. We had another utter silent meal when Mom and Dad came home, and after supper I flagged. Rayno had been in the Net and left a remark on when to find him.

I finally got him on line around eight, and he said Georgie was getting trashed and probably heading for permanent downtime.

Then I told Rayno all about how I outlooped my old man, but he didn't seem real buzzed about it. He said he had something cooking and couldn't meet me at Buddy's that night to talk about it, either. So we got off line, and I started another war and then went to sleep.

The snoozer said 5:25 when I woke up, and I couldn't logic how come I was awake 'til I started making sense out of my ears. Dad was taking apart the hinges on my door!

"Dad! You cut that out or I'll purge you clean! There won't be backups this time!"

"Try it," he growled.

I jumped out of my sleepsack, powered up, booted and — no boot. I tried again. I could get on line in my smartterm, but I couldn't port out. "I cut your cable down in the basement," he said.

I grabbed the Starfire out of my closet and zipped it inside my jumper, but before I could do the window, the door and Dad both fell in. Mom came in right behind, popped open my dresser, and started stuffing socks and underwear in a suitcase.

"Now you're fritzed!" I told Dad. "I'll *never* give you back your files!" He grabbed my arm.

"Michael, there's something I think you should see." He dragged me down to his den and pulled some bundles of old paper trash out of his

desk. "These are receipts. This is what obsolete old relics like me use because we don't trust computer bookkeeping. I checked with work and the bank; everything that goes on in the computer has to be verified with paper. You can't change anything for more than 24 hours."

"Twenty-four hours?" I laughed. "Then you're still fritzed! I can still wipe you out any day, from any term in CityNet!"

"I know."

Mom came into the den, carrying the suitcase and kleenexing her eyes. "Mikey, you've got to understand that we love you, and this is for your own good." They dragged me down to the airport and stuffed me in a private lear with a bunch of old gestapos.

I've had a few weeks now to get used to the Von Schlager Military Academy. They tell me I'm a bright kid and with good behavior, there's really no reason at all why I shouldn't graduate in five years. I *am* getting tired, though, of all the older cadets telling me how soft I've got it now that they've installed indoor plumbing.

Of course, I'm free to walk out any time I want. It's only three hundred miles to Fort McKenzie, where the road ends.

Sometimes at night, after lights out, I'll pull out my Starfire and run my fingers over the touchpads. That's all I can do, since they turn off power in the barracks at night. I'll lie there in the dark, thinking about Lisa, and Georgie, and Buddy's All-Night Burgers, and all the fun we used to pull off. But mostly I'll think about Rayno, and what great plans he cooks up.

I can't wait to see how he gets me out of this one.



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# LETTERS FROM AN SF EDITOR

by Dainis Bisenieks

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*We try to be kindly editors here, but most often our kindness must take the form of criticism. Which we like to offer politely, but not in a way that would blunt its point. And time and again strong language is called for — a NO delivered in words with some bite to them. Attend, please — we have had to write versions of each of the following letters repeatedly. And if we respond to bad writing by cutting verbal capers and taking a slightly wicked pleasure in them, may we be forgiven!*

Dear Mr. Futhark,

Many writers have made a start by flinging down a magazine and exclaiming, "I can write better than that!" We fear that you were not one of them. Instead of trying to outdo the SF of today, you are reinventing all the things that were fresh once — and once only. By page 2 of your story we are overtaken by suspicion. You are going to spring something on us. The aliens will, at the end, turn out to be from a planet with one moon, third from its sun. A quick check — and sure enough. Does any more interest reside in the intervening prose? It does not. You have shot your bolt.

You have, as it were, discovered fire; all in good time you will invent the wheel. Allow us to sell you our guide, *Constructing Scientifiction & Fantasy*. It should get you at least to the discovery of iron. And with fire, iron, and the wheel, who knows what you might not contrive?

Constructively,

The Editor

Dear Ms. Katakana,

We know that you mean well in trying to infuse your story with character and motive. Unfortunately, your description of the hero seems lifted out of his job résumé. Characterization is not accomplished by discoursing about people in the abstract. It is a matter of showing your people doing, being done to, and changing as a result. That way you can move your story and your reader: not by telling about your character's perceptions, hindrances, and propensities. Reading prose such as this is like swimming through oatmeal. So shun -tions, -ances, and -ities. If nothing else, your ear should react to their sound. Which is better — attention to the alleviation of comprehension or making yourself clear?

Tioncerely yours,

The Editor

Dear Mr. Ogham,

The essence of science fiction (and fantasy) is that you should be imaginatively transported outside of yourself. We ask you, is this done when your protagonist is a *writer*? We get these things regularly: yours is the third today. Naturally the writers are either blocked or denied worldly success, and they invoke extra-worldly aid again and again and again.

Even the most hackneyed theme can be redeemed by the presence of a well-realized character, coming to awareness of the cost of his choices. Not, alas, in your story.

Yours,

The Editor

Dear Ms. Rune,

You tell us that you have written a

story in the vein of Ron Goulart. Sounds vaguely vampirical to us. Clearly you wanted it at all costs to be madcap, riotous, and zany; and to this end you have introduced something outrageous on every page. We regret that the effect is that of being thwacked steadily over the head with a bladder. Complete numbness sets in well before the halfway point.

We accept that neophyte writers must have *some* literary models. The alternative is to have none, and we have seen the consequences of *that*. But when are you going to develop some red corpuscles of your own? We might look forward to the day when somebody offers an editor a story "in the vein of Ms. Runc." The sincerest form of flattery, you know.

Yours,

The Editor

Dear Mr. Hiragana,

How can we warn people ahead of time that their neat idea for a story might not be a very new one? Well, at least if it's founded on something everybody knows about, then doubtless a thousand others have had the same thought.

Therefore: you are not the first who has thought of a DUNGEONS & DRAGONS® player being translated into a universe where all these things are real. Not by a long shot. There are two versions. You have spared us the totally naïf one, where the guy says, "Hey, this is gonna be fun!" You at least realize that he's going to have another think coming. But that is reasonably obvious; and your hero is a type, not an individual.

And your lingo is a pain in the tochus. No, *we* are not going to tell you the difference between "thou" and "thee."

Backward run sentences until reels the mind. This we do tell you, that you

may depart from "normal" word order for *emphasis*. And can the expletives, such as *forsooth*, *zounds*, and *tush!* In the last century, the name of tushery was given to this sort of stuff. The battle against it continues.

Yours,

The Editor

Dear Mrs. Kanji,

Among old hats, your story is a real topper. Cutesy alien lands and asks Earth native for directions; complete mutual misunderstanding results. This merely rates a yawn . . . but what inspired you to name the alien Zzyzx? Such mastery of cliché is awesome. Are prehistoric men named Ug also in your repertory?

Please know that the best humor has characterization which is disturbingly close to life. We laugh . . . but afterward we are moved to reflect. Nothing in your story is true to life: it is all contrived. But Zzyzx too shall pass away. . . .

Yours,

The Editor

Dear Mr. Pilcrow,

Your "Black Sword of the Enchanted Flame" really has it all: a castle, a usurper, a damsel in distress, a secret underground passage . . . the WORKS, including a hero with an ace up his sleeve. This is no less than is promised by the title. The whole is such unabashed claptrap that we despair of bringing you to your senses. We would be happy — almost — if you never sent us anything of this sort again. But we would like to see a reform in your whole approach to storytelling. Look, your characters aren't people, they are automatons. They have a set repertoire of speeches: hero's defiance of villain, hero's reassurance of heroine, and so forth. Your story is a stock sequence of

stock situations with stock speeches.

And the magical object is so versatile that we cannot conceive a reason, except the dead hand of tradition, why it should be a sword. It could be an aspergillum, and you could still counter your enemies' weapons with it if it was magical enough.

Yours,

The Editor

Dear Mr. Ampersand,

Your "Enchanted Sword of the Black Flame" really has it all . . .

Dear Mr. Kirillitza,

Alas, the impression given by your "Kidnappers From the Coalsack" is that you have read no science fiction since Carl H. Claudy. Your aliens are merely foreigners with blue skin and illogical but clearly nefarious motives. The motley assortment of earthlings they make off with are simply too cooperative and resourceful. The few minor setbacks in their progress are not enough for a real story. The dialogue reminds us of both Tom Swift and of Ralph 124C41+, if you know who *he* was: your characters are always explaining to one another things which their hearers know perfectly well. There is something boyish about their speech (the women's, too): the whole thing smacks of wish-fulfillment.

Now YOU *need* some things explained to you. It was a shame to leave the red half of the ribbon unused, you thought? NO! Black, black is the color — and we don't mean gray, either. And "double-spacing," like "science fiction," means what you point to when you say it. It is not two spaces between words, but simply one line space between lines. There are handbooks . . . and, here, have a copy of our pamphlet by way of first aid.

Oh, and your astronomy is totally

absurd. Not our duty to explain further.

Yours,

The Editor

Dear Mr. Firman,

On Jupiter? *On* Jupiter? You casually set a scene of "Buccaneers From the Black Nebula" there, as if it were just another place (nor is this even required by your story). Now forty or fifty years ago the fancies of writers and artists as well — there was a whole series of paintings by Frank R. Paul — populated every planet and several major moons in the Solar System. Science, which was pretty sure even then, nowadays firmly says **no** to this, and you ought to pay attention. Alternatively, you should provide some explanation of this anomaly, or you will be suspected of not knowing your parsec from a black hole.

Sincerely,

The Editor

Dear Ms. Glyph,

There is a film in which Buster Keaton (as we recall) launches a boat — which goes straight to the bottom. Your story does the same. What sinks it is chiefly *inveighing*.

Let good and evil slug it out, by all means. Let evil get the stuffing beaten out of it, even — but don't let it, as in your story, be straw.

Let us recommend, purely as an exercise, that you write this story over, from the point of view of the villain. Let him justify himself (but not in monologue). Let him see the hero as mistaken. Toward the end, you are permitted to introduce some doubts. . . .

After you have done that, you may submit to us your *next* story.

Yours,

The Editor

Dear Miss Spondee,

Parts of your sonnet were quite good.

Yours,

The Editor

Dear Mr. Graffito,

You are making a mistake. Instead of, as it were, shooting the sheriff in the first paragraph, you are discoursing on the history of law enforcement in the West. You are doing so with all the style of a high school term paper; and these lumps of exposition continue throughout your story. You have fallen prey to Scylla and Charybdis both: you ought to realize that it's no better having your characters tell one another these things for the reader's benefit. We can only suggest that you study how the masters do it. For one, they do it with style.

It's all the more pity that your characters show signs of life now and then; but then you screw down the lid and throw earth on the coffin.

In deepest sympathy,

The Editor

Dear Mr. Screed,

Jealous of your work? You misunderstand entirely. We might be jealous of

other editors, in which case we might strive all the more to outdo them.

It is only right that you should have thought well of your work when you submitted it to us. We expect no less. But you protest too much. We only told you why it was not suitable for *us*. We hope that you will in time discover the entirely different pride of the professional who has satisfactorily done what is asked of him.

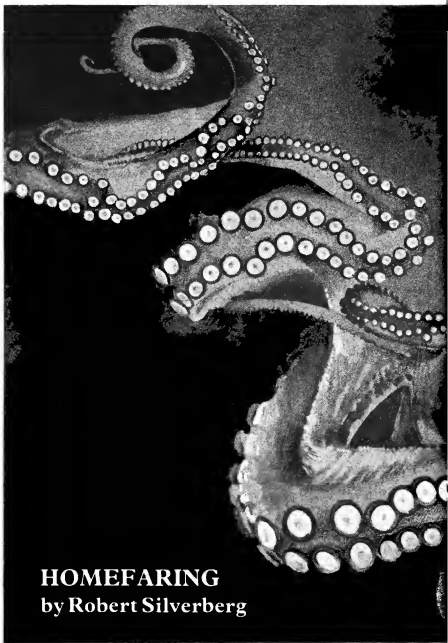
We will not enlarge on our earlier comments about your plot. Or the characterization. Or the dialogue. Or about the long sections of background exposition. What we have written, we have written: it sufficed. We admit that we *could* have told you why your astronomy was absurd. Though there are books. And if we tell you that your syntax and spelling are bad, there too are books, and you could on that point have believed us. We would be glad, if we find them in your next contribution, to point out some specific errors for your edification.

But if you wish to help the predicted downfall of *Amazing* by withholding your impeccable contributions . . . well, it's your choice.

More in sorrow,

The Editor





**HOMEFARING**  
by Robert Silverberg



art: Artifact

*Mr. Silverberg tells us that he is just launching himself and his new word-processor into Valentine Pontifex, the sequel to Lord Valentine's Castle. Meanwhile, however, an utterly different story . . . :*

McCulloch was beginning to molt. The sensation, inescapable and unarguable, horrified him — it felt exactly as though his body was going to split apart, which it was — and yet it was also completely familiar, expected, welcome. Wave after wave of keen and dizzying pain swept through him. Burrowing down deep in the sandy bed, he waved his great claws about, lashed his flat tail against the pure white sand, scratched frantically with quick worried gestures of his eight walking-legs.

He was frightened. He was calm. He had no idea what was about to happen to him. He had done this a hundred times before.

The molting prodrome had overwhelming power. It blotted from his mind all questions, and, after a moment, all fear. A white line of heat ran down his back — no, down the top of his carapace — from a point just back of his head to the first flaring segments of his tail-fan. He imagined that all the sun's force, concentrated through some giant glass lens, was being inscribed in a single track along his shell. And his soft inner body was straining, squirming, expanding, filling the carapace to overflowing. But still that rigid shell contained him, refusing to yield to the pressure. To McCulloch it was much like being inside a wet-suit that was suddenly five times too small.

— *What is the sun? What is glass? What is a lens? What is a wet-suit?*

The questions swarmed suddenly upward in his mind like little busy many-legged creatures springing out of the sand. But he had no time for providing answers. The molting prodrome was developing with astounding swiftness, carrying him along. The strain was becoming intolerable. In another moment he would surely burst. He was writhing in short angular convulsions. Within his claws, his tissues now were shrinking, shriveling, drawing back within the ferocious shell-hulls, but the rest of him was continuing inexorably to grow larger.

He had to escape from this shell, or it would kill him. He had to expel himself somehow from this impossibly constricting container. Digging his front claws and most of his legs into the sand, he heaved, twisted, stretched, pushed. He thought of himself as being pregnant with himself, struggling fiercely to deliver himself of himself.

*Ah. The carapace suddenly began to split.*

The crack was only a small one, high up near his shoulders — *shoulders?* — but the imprisoned substance of him surged swiftly toward it, widening and lengthening it, and in another moment the hard horny covering was cracked from end to end. *Ah. Ah.* That felt so good, that release from constraint! Yet McCulloch still had to free himself. Delicately he drew

himself backward, withdrawing leg after leg from its covering in a precise, almost fussy way, as though he were pulling his arms from the sleeves of some incredibly ancient and frail garment.

Until he had his huge main claws free, though, he knew he could not extricate himself from the sundered shell. And freeing the claws took extreme care. The front limbs still were shrinking, and the limy joints of the shell seemed to be dissolving and softening, but nevertheless he had to pull each claw through a passage much narrower than itself. It was easy to see how a hasty move might break a limb off altogether.

He centered his attention on the task. It was a little like telling his wrists to make themselves small, so he could slide them out of handcuffs.

— *Wrists? Handcuffs? What are those?*

McCulloch paid no attention to that baffling inner voice. Easy, easy, there — ah — yes, there, like that! One claw was free. Then the other, slowly, carefully. Done. Both of them retracted. The rest was simple: some shrugging and wiggling, exhausting but not really challenging, and he succeeded in extending the breach in the carapace until he could crawl backward out of it. Then he lay on the sand beside it, weary, drained, naked, soft, terribly vulnerable. He wanted only to return to the sleep out of which he had emerged into this nightmare of shellsplitting.

But some force within him would not let him slacken off. A moment to rest, only a moment. He looked to his left, toward the discarded shell. Vision was difficult — there were peculiar, incomprehensible refraction effects that broke every image into thousands of tiny fragments — but despite that, and despite the dimness of the light, he was able to see that the shell, golden-hued with broad arrow-shaped red markings, was something like a lobster's, yet even more intricate, even more bizarre. McCulloch did not understand why he had been inhabiting a lobster's shell. Obviously because he was a lobster; but he was not a lobster. That was so, was it not? Yet he was underwater. He lay on fine white sand, at a depth so great he could not make out any hint of sunlight overhead. The water was warm, gentle, rich with tiny tasty creatures and with a swirling welter of sensory data that swept across his receptors in bewildering abundance.

He sought to learn more. But there was no further time for resting and thinking now. He was unprotected. Any passing enemy could destroy him while he was like this. Up, up, seek a hiding-place: that was the requirement of the moment.

First, though, he paused to devour his old shell. That too seemed to be the requirement of the moment; so he fell upon it with determination, seizing it with his clumsy-looking but curiously versatile front claws, drawing it toward his busy, efficient mandibles. When that was accomplished — no doubt to recycle the lime it contained, which he needed for the growth of his new shell — he forced himself up and began a slow

scuttle, somehow knowing that the direction he had taken was the right one.

Soon came the vibrations of something large and solid against his sensors — a wall, a stone mass rising before him — and then, as he continued, he made out with his foggy vision the sloping flank of a dark broad cliff rising vertically from the ocean floor. Festoons of thick, swaying red and yellow water plants clung to it, and a dense stippling of rubbery-looking finger-shaped sponges, and a crawling, gaping, slithering host of crabs and mollusks and worms, which vastly stirred McCulloch's appetite. But this was not a time to pause to eat, lest he be eaten. Two enormous green anemones yawned nearby, ruffling their voluptuous membranes seductively, hopefully. A dark shape passed overhead, huge, tubular, tentacular, menacing. Ignoring the thronging populations of the rock, McCulloch picked his way over and around them until he came to the small cave, the McCulloch-sized cave, that was his goal.

Gingerly he backed through its narrow mouth, knowing there would be no room for turning around once he was inside. He filled the opening nicely, with a little space left over. Taking up a position just within the entrance, he blocked the cave-mouth with his claws. No enemy could enter now. Naked though he was, he would be safe during his vulnerable period.

For the first time since his agonizing awakening, McCulloch had a chance to halt: rest, regroup, consider.

It seemed a wise idea to be monitoring the waters just outside the cave even while he was resting, though. He extended his antennae a short distance into the swarming waters, and felt at once the impact, again, of a myriad sensory inputs, all the astounding complexity of the reef-world. Most of the creatures that moved slowly about on the face of the reef were simple ones, but McCulloch could feel, also, the sharp pulsations of intelligence coming from several points not far away: the anemones, so it seemed, and that enormous squid-like thing hovering overhead. Not intelligence of a kind that he understood, but that did not trouble him: for the moment, understanding could wait, while he dealt with the task of recovery from the exhausting struggles of his molting. Keeping the antennae moving steadily in slow sweeping circles of surveillance, he began systematically to shut down the rest of his nervous system, until he had attained the rest state that he knew — how? — was optimum for the rebuilding of his shell. Already his soft new carapace was beginning to grow rigid as it absorbed water, swelled, filtered out and utilized the lime. But he would have to sit quietly a long while before he was fully armored once more.

He rested. He waited. He did not think at all.

\* \* \*

After a time his repose was broken by that inner voice, the one that had been trying to question him during the wildest moments of his molting. It spoke without sound, from a point somewhere within the core of his torpid consciousness.

— *Are you awake?*

— *I am now*, McCulloch answered irritably.

— *I need definitions. You are a mystery to me. What is a McCulloch?*

— *A man.*

— *That does not help.*

— *A male human being.*

— *That also has no meaning.*

— *Look, I'm tired. Can we discuss these things some other time?*

— *This is a good time. While we rest, while we replenish ourself.*

— *Ourselves*, McCulloch corrected.

— *Ourself is more accurate.*

— *But there are two of us.*

— *Are there? Where is the other?*

McCulloch faltered. He had no perspective on his situation, none that made any sense. — *One inside the other, I think. Two of us in the same body. But definitely two of us. McCulloch and not-McCulloch.*

— *I concede the point. There are two of us. You are within me. Who are you?*

— *McCulloch.*

— *So you have said. But what does that mean?*

— *I don't know.*

The voice left him alone again. He felt its presence nearby, as a kind of warm node somewhere along his spine, or whatever was the equivalent of his spine, since he did not think invertebrates had spines. And it was fairly clear to him that he was an invertebrate.

He had become, it seemed, a lobster, or, at any rate, something lobster-like. Implied in that was transition: *he had become*. He had once been something else. Blurred, tantalizing memories of the something else that he once had been danced in his consciousness. He remembered hair, fingers, fingernails, flesh. Clothing: a kind of removable exoskeleton. Eyelids, ears, lips: shadowy concepts all, names without substance, but there was a certain elusive reality to them, a volatile, tricky plausibility. Each time he tried to apply one of those concepts to himself — “fingers,” “hair,” “man,” “McCulloch” — it slid away, it would not stick. Yet all the same those terms had some sort of relevance to him.

The harder he pushed to isolate that relevance, though, the harder it was to maintain his focus on any part of that soup of half-glimpsed notions in which his mind seemed to be swimming. The thing to do, McCulloch decided, was to go slow, try not to force understanding, wait

for comprehension to seep back into his mind. Obviously he had had a bad shock, some major trauma, a total disorientation. It might be days before he achieved any sort of useful integration.

A gentle voice from outside his cave said, "I hope that your Growing has gone well."

Not a voice. He remembered voice: vibration of the air against the eardrums. No air here, maybe no eardrums. This was a stream of minute chemical messengers spurting through the mouth of the little cave and rebounding off the thousands of sensory filaments on his legs, tentacles, antennae, carapace, and tail. But the effect was one of words having been spoken. And it was distinctly different from that other voice, the internal one, that had been questioning him so assiduously a little while ago.

"It goes extremely well," McCulloch replied: or was it the other inhabitant of his body that had framed the answer? "I grow. I heal. I stiffen. Soon I will come forth."

"We feared for you." The presence outside the cave emanated concern, warmth, intelligence. Kinship. "In the first moments of your Growing, a strangeness came from you."

"Strangeness is within me. I am invaded."

"Invaded? By what?"

"A McCulloch. It is a man, which is a human being."

"Ah. A great strangeness indeed. Do you need help?"

McCulloch answered, "No. I will accommodate to it."

And he knew that it was the other within himself who was making these answers, though the boundary between their identities was so indistinct that he had a definite sense of being the one who shaped these words. But how could that be? He had no idea how one shaped words by sending squirts of body-fluid into the all-surrounding ocean-fluid. That was not his language. His language was —

— words —

— English words —

He trembled in sudden understanding. His antennae thrashed wildly, his many legs jerked and quivered. Images churned in his suddenly boiling mind: bright lights, elaborate equipment, faces, walls, ceilings. People moving about him, speaking in low tones, occasionally addressing words to him, English words —

— *Is English what all McCullochs speak?*

— *Yes.*

— *So English is human-language?*

— *Yes. But not the only one, said McCulloch. I speak English, and also German and a little — French. But other humans speak other languages.*

— *Very interesting. Why do you have so many languages?*

— *Because — because — we are different from one another, we live in different countries, we have different cultures —*

— *This is without meaning again. There are many creatures, but only one language, which all speak with greater or lesser skill, according to their destinies.*

McCulloch pondered that. After a time he replied:

— *Lobster is what you are. Long body, claws and antennae in front, many legs, flat tail in back. Different from, say, a clam. Clams have shell on top, shell on bottom, soft flesh in between, hinge connecting. You are not like that. You have lobster body. So you are lobster.*

Now there was silence from the other.

Then — after a long pause —

— *Very well. I accept the term. I am lobster. You are human. They are clams.*

— *What do you call yourselves in your own language?*

Silence.

— *What's your own name for yourself? Your individual self, the way my individual name is McCulloch and my species-name is human being?*

Silence.

— *Where am I, anyway?*

Silence, still, so prolonged and utter that McCulloch wondered if the other being had withdrawn itself from his consciousness entirely. Perhaps days went by in this unending silence, perhaps weeks: he had no way of measuring the passing of time. He realized that such units as days or weeks were without meaning now. One moment succeeded the next, but they did not aggregate into anything continuous.

At last came a reply.

— *You are in the world, human McCulloch.*

Silence came again, intense, clinging, a dark warm garment. McCulloch made no attempt to reach the other mind. He lay motionless, feeling his carapace thicken. From outside the cave came a flow of impressions of passing beings, now differentiating themselves very sharply: he felt the thick fleshy pulses of the two anemones, the sharp stabbing presence of the squid, the slow ponderous broadcast of something dark and winged, and, again and again, the bright, comforting, unmistakable output of other lobster-creatures. It was a busy, complex world out there. The McCulloch part of him longed to leave the cave and explore it. The lobster part of him rested, content within its tight shelter.

He formed hypotheses. He had journeyed from his own place to this place, damaging his mind in the process, though now his mind seemed to be reconstructing itself steadily, if erratically. What sort of voyage? To another world? No: that seemed wrong. He did not believe that conditions so much like the ocean-floor of Earth would be found on another — *Earth.*

All right: significant datum. He was human, he came from Earth. And

he was still on Earth. In the ocean. He was — what? — a land-dweller, an air-breather, a biped, a flesh-creature, a human. And now he was within the body of a lobster. Was that it? The entire human race, he thought, has migrated into the bodies of lobsters, and here we are on the ocean floor, scuttling about, waving our claws and feelers, going through difficult and dangerous moltings —

Or maybe I'm the only one. A scientific experiment, with me as the subject: man into lobster. That brightly lit room that he remembered, the intricate gleaming equipment all about him — that was the laboratory, that was where they had prepared him for his transmigration, and then they had thrown the switch and hurled him into the body of —

No. No. Makes no sense. Lobsters, McCulloch reflected, are low-phylum creatures with simple nervous systems, limited intelligence. Plainly the mind he had entered was a complex one. It asked thoughtful questions. It carried on civilized conversations with its friends, who came calling like ceremonious Japanese gentlemen, offering expressions of solicitude and good will.

New hypothesis: that lobsters and other low-phylum animals are actually quite intelligent, with minds roomy enough to accept the sudden insertion of a human being's entire neural structure, but we in our foolish anthropocentric way have up till now been too blind to perceive —

No. Too facile. You could postulate the secretly lofty intelligence of the world's humble creatures, all right: you could postulate anything you wanted. But that didn't make it so. Lobsters did not ask questions. Lobsters did not come calling like ceremonious Japanese gentlemen. At least, not the lobsters of the world he remembered.

Improved lobsters? Evolved lobsters? Super-lobsters of the future?

— *When am I?*

Into his dizzied broodings came the quiet disembodied internal voice of not-McCulloch, his companion:

— *Is your displacement then one of time rather than space?*

— *I don't know. Probably both. I'm a land creature.*

— *That has no meaning.*

— *I don't live in the ocean. I breathe air.*

From the other consciousness came an expression of deep astonishment tinged with skepticism.

— *Truly? That is very hard to believe. When you are in your own body you breathe no water at all?*

— *None. Not for long, or I would die.*

— *But there is so little land! And no creatures live upon it. Some make short visits there. But nothing can dwell there very long. So it has always been. And so will it be, until the time of the Molting of the World.*

McCulloch considered that. Once again he found himself doubting that he was still on Earth. A world of water? Well, that could fit into his

hypothesis of having journeyed forward in time, though it seemed to add a layer of implausibility upon implausibility. How many millions of years, he wondered, would it take for nearly all the Earth to have become covered with water? And he answered himself: In about as many as it would take to evolve a species of intelligent invertebrates.

Suddenly, terribly, it all fit together. Things crystallized and clarified in his mind, and he found access to another segment of his injured and redistributed memory; and he began to comprehend what had befallen him, or, rather, what he had willingly allowed himself to undergo. With that comprehension came a swift stinging sense of total displacement and utter loss, as though he were drowning and desperately tugging at strands of seaweed in a futile attempt to pull himself back to the surface. All that was real to him, all that he was part of, everything that made sense — gone, gone, perhaps irretrievably gone, buried under the weight of uncountable millennia, vanished, drowned, forgotten, reduced to mere geology — it was unthinkable, it was unacceptable, it was impossible, and as the truth of it bore in on him he found himself choking on the frightful vastness of time past.

But that bleak sensation lasted only a moment and was gone. In its place came excitement, delight, confusion, and a feverish throbbing curiosity about this place he had entered. He was here. That miraculous thing that they had strived so fiercely to achieve had been achieved — rather too well, perhaps, but it had been achieved, and he was launched on the greatest adventure he would ever have, that anyone would ever have. This was not the moment for submitting to grief and confusion. Out of that world lost and all but forgotten to him came a scrap of verse that gleamed and blazed in his soul: *Only through time time is conquered.*

McCulloch reached toward the mind that was so close to his within this strange body.

— *When will it be safe for us to leave this cave?* he asked.

— *It is safe any time, now. Do you wish to go outside?*

— *Yes. Please.*

The creature stirred, flexed its front claws, slapped its flat tail against the floor of the cave, and in a slow ungraceful way began to clamber through the narrow opening, pausing more than once to search the waters outside for lurking enemies. McCulloch felt a quick hot burst of terror, as though he were about to enter some important meeting and had discovered too late that he was naked. Was the shell truly ready? Was he safely armored against the unknown foes outside, or would they fall upon him and tear him apart like furious shrieks? But his host did not seem to share those fears. It went plodding on and out, and in a moment more it emerged on an algae-encrusted tongue of the reef wall, a short distance below the two anemones. From each of those twin masses of rippling flesh came the same sullen pouting hungry murmurs: "Ah, come closer, why

don't you come closer?"

"Another time," said the lobster, sounding almost playful, and turned away from them.

McCulloch looked outward over the landscape. Earlier, in the turmoil of his bewildering arrival and the pain and chaos of the molting prodrome, he had not had time to assemble any clear and coherent view of it. But now — despite the handicap of seeing everything with the alien perspective of the lobster's many-faceted eyes — he was able to put together an image of the terrain.

His view was a shortened one, because the sky was like a dark lid, through which came only enough light to create a cone-shaped arena spreading just a little way. Behind him was the face of the huge cliff, occupied by plant and animal life over virtually every square inch, and stretching upward until its higher reaches were lost in the dimness far overhead. Just a short way down from the ledge where he rested was the ocean floor, a broad expanse of gentle, undulating white sand streaked here and there with long widening gores of some darker material. Here and there bottom-growing plants arose in elegant billowy clumps, and McCulloch spotted occasional creatures moving among them over the sand that there were much like lobsters and crabs, though with some differences. He saw also some starfish and snails and sea urchins that did not look at all unfamiliar. At higher levels he could make out a few swimming creatures: a couple of the squid-like animals — they were hulking-looking ropy-armed things, and he disliked them instinctively — and what seemed to be large jellyfish. But something was missing, and after a moment McCulloch realized what it was: fishes. There was a rich population of invertebrate life wherever he looked, but no fishes as far as he could see.

Not that he could see very far. The darkness clamped down like a curtain perhaps two or three hundred yards away. But even so, it was odd that not one fish had entered his field of vision in all this time. He wished he knew more about marine biology. Were there zones on Earth where no sea animals more complex than lobsters and crabs existed? Perhaps, but he doubted it.

Two disturbing new hypotheses blossomed in his mind. One was that he had landed in some remote future era where nothing out of his own time survived except low-phylum sea-creatures. The other was that he had not traveled to the future at all, but had arrived by mischance in some primordial geological epoch in which vertebrate life had not yet evolved. That seemed unlikely to him, though. This place did not have a prehistoric feel to him. He saw no trilobites; surely there ought to be trilobites everywhere about, and not these oversized lobsters, which he did not remember at all from his childhood visits to the natural history museum's prehistory displays.

But if this was truly the future — and the future belonged to the lobsters and squids —

That was hard to accept. Only invertebrates? What could invertebrates accomplish, what kind of civilization could lobsters build, with their hard unsupple bodies and great clumsy claws? Concepts, half-remembered or less than that, rushed through his mind: the Taj Mahal, the Gutenberg Bible, the Sistine Chapel, the Madonna of the Rocks, the great window at Chartres. Could lobsters create those? Could squids? What a poor place this world must be, McCulloch thought sadly, how gray, how narrow, how tightly bounded by the ocean above the endless sandy floor.

— *Tell me, he said to his host. Are there any fishes in this sea?*

The response was what he was coming to recognize as a sigh.

— *Fishes? That is another word without meaning.*

— *A form of marine life, with an internal bony structure —*

— *With its shell inside?*

— *That's one way of putting it, said McCulloch.*

— *There are no such creatures. Such creatures have never existed. There is no room for the shell within the soft parts of the body. I can barely comprehend such an arrangement: surely there is no need for it!*

— *It can be useful, I assure you. In the former world it was quite common.*

— *The world of human beings?*

— *Yes. My world, McCulloch said.*

— *Anything might have been possible in a former world, human McCulloch. Perhaps indeed before the world's last Molting shells were worn inside. And perhaps after the next one they will be worn there again. But in the world I know, human McCulloch, it is not the practice.*

— *Ah, McCulloch said. Then I am even farther from home than I thought.*

— *Yes, said the host. I think you are very far from home indeed. Does that cause you sorrow?*

— *Among other things.*

— *If it causes you sorrow, I grieve for your grief, because we are companions now.*

— *You are very kind, said McCulloch to his host.*

The lobster asked McCulloch if he was ready to begin their journey; and when McCulloch indicated that he was, his host serenely kicked itself free of the ledge with a single powerful stroke of its tail. For an instant it hung suspended; then it glided toward the sandy bottom as gracefully as though it were floating through air. When it landed, it was with all its many legs poised delicately *en pointe*, and it stood that way, motionless, a long moment.

Then it suddenly set out with great haste over the ocean floor, running so lightfootedly that it scarcely raised a puff of sand wherever it touched

down. More than once it ran right across some bottom-grubbing creature, some slug or scallop, without appearing to disturb it at all. McCulloch thought the lobster was capering in sheer exuberance, after its long internment in the cave; but some growing sense of awareness of his companion's mind told him after a time that this was no casual frolic, that the lobster was not in fact dancing but fleeing.

— *Is there an enemy?* McCulloch asked.

— *Yes. Above.*

The lobster's antennae stabbed upward at a sharp angle, and McCulloch, seeing through the other's eyes, perceived now a large looming cylindrical shape swimming in slow circles near the upper border of their range of vision. It might have been a shark, or even a whale. McCulloch felt deceived and betrayed; for the lobster had told him this was an invertebrate world, and surely that creature above him —

— *No*, said the lobster, without slowing its manic sprint. *That animal has no shell of the sort you described within its body. It is only a bag of flesh. But it is very dangerous.*

— *How will we escape it?*

— *We will not escape it.*

The lobster sounded calm, but whether it was the calm of fatalism or mere expressionlessness, McCulloch could not say: the lobster had been calm even in the first moments of McCulloch's arrival in its mind, which must surely have been alarming and even terrifying to it.

It had begun to move now in ever-widening circles. This seemed not so much an evasive tactic as a ritualistic one, now, a dance indeed. A farewell to life? The swimming creature had descended until it was only a few lobster-lengths above them, and McCulloch had a clear view of it. No, not a fish or a shark or any type of vertebrate at all, he realized, but an animal of a kind wholly unfamiliar to him, a kind of enormous worm-like thing whose meaty yellow body was reinforced externally by some sort of chitinous struts running its entire length. Fleshy vane-like fins rippled along its sides, but their purpose seemed to be more one of guidance than propulsion, for it appeared to move by guzzling in great quantities of water and expelling them through an anal siphon. Its mouth was vast, with a row of dim little green eyes ringing the scarlet lips. When the creature yawned, it revealed itself to be toothless, but capable of swallowing the lobster easily at a gulp.

Looking upward into the yawning mouth, McCulloch had a sudden image of himself elsewhere, spreadeagled under an inverted pyramid of shining machinery as the countdown reached its final moments, as the technicians made ready to —

— to hurl him —

— to hurl him forward in time —

Yes. An experiment. Definitely an experiment. He could remember it now. Bleier, Caldwell, Rodrigues, Mortenson. And all the others. Gathered around him, faces tight, forced smiles. The lights. The colors. The bizarre coils of equipment. And the volunteer. The volunteer. First human subject to be sent forward in time. The various rabbits and mice of the previous experiments, though they had apparently survived the round trip unharmed, had not been capable of delivering much of a report on their adventures. "I'm smarter than any rabbit," McCulloch had said. "Send me. I'll tell you what it's like up there." The volunteer. All that was coming back to him in great swatches now, as he crouched here within the mind of something much like a lobster, waiting for a vast yawning predator to pounce. The project, the controversies, his co-workers, the debate over risking a human mind under the machine, the drawing of lots. McCulloch had not been the only volunteer. He was just the lucky one. "Here you go, Jim-boy. A hundred years down the time-line."

Or fifty, or eighty, or a hundred and twenty. They didn't have really precise trajectory control. They thought he might go as much as a hundred twenty years. But beyond much doubt they had overshot by a few hundred million. Was that within the permissible parameters of error?

He wondered what would happen to him if his host here were to perish. Would he die also? Would he find himself instantly transferred to some other being of this epoch? Or would he simply be hurled back instead to his own time? He was not ready to go back. He had just begun to observe, to understand, to explore —

McCulloch's host had halted its running, now, and stood quite still in what was obviously a defensive mode, body cocked and upreared, claws extended, with the huge crusher claw erect and the long narrow cutting claw opening and closing in a steady rhythm. It was a threatening pose, but the swimming thing did not appear to be greatly troubled by it. Did the lobster mean to let itself be swallowed, and then to carve an exit for itself with those awesome weapons, before the alimentary juices could go to work on its armor?

"You choose your prey foolishly," said McCulloch's host to its enemy.

The swimming creature made a reply that was unintelligible to McCulloch: vague blurry words, the clotted outspew of a feeble intelligence. It continued its unhurried downward spiral.

"You are warned," said the lobster. "You are not selecting your victim wisely."

Again came a muddled response, sluggish and incoherent, the speech of an entity for whom verbal communication was a heavy, all but impossible effort.

Its enormous mouth gaped. Its fins rippled fiercely as it siphoned itself downward the last few yards to engulf the lobster. McCulloch prepared himself for transition to some new and even more unimaginable state when his host met its death. But suddenly the ocean floor was swarming with lobsters. They must have been arriving from all sides — summoned by his host's frantic dance, McCulloch wondered? — while McCulloch, intent on the descent of the swimmer, had not noticed. Ten, twenty, possibly fifty of them arrayed themselves now beside McCulloch's host, and as the swimmer, tail on high, mouth wide, lowered itself like some gigantic suction-hose toward them, the lobsters coolly and implacably seized its lips in their claws. Caught and helpless, it began at once to thrash, and from the pores through which it spoke came bleating incoherent cries of dismay and torment.

There was no mercy for it. It had been warned. It dangled tail upward while the pack of lobsters methodically devoured it from below, pausing occasionally to strip away and discard the rigid rods of chitin that formed its superstructure. Swiftly they reduced it to a faintly visible cloud of shreds oscillating in the water, and then small scavenging creatures came to fall upon those, and there was nothing at all left but the scattered rods of chitin on the sand.

The entire episode had taken only a few moments: the coming of the predator, the dance of McCulloch's host, the arrival of the other lobsters, the destruction of the enemy. Now the lobsters were gathered in a sort of convocation about McCulloch's host, wordlessly manifesting a commonality of spirit, a warmth of fellowship after feasting, that seemed quite comprehensible to McCulloch. For a short while they had been uninhibited savage carnivores consuming convenient meat; now once again they were courteous, refined, cultured — Japanese gentlemen, Oxford dons, gentle Benedictine monks.

McCulloch studied them closely. They were definitely more like lobsters than like any other creature he had even seen, very much like lobsters, and yet there were differences. They were larger. How much larger, he could not tell, for he had no real way of judging distance and size in this undersea world; but he supposed they must be at least three feet long, and he doubted that lobsters of his time, even the biggest, were anything like that in length. Their bodies were wider than those of lobsters, and their heads were larger. The two largest claws looked like those of the lobsters he remembered, but the ones just behind them seemed more elaborate, as if adapted for more delicate procedures than mere rending of food and stuffing it into the mouth. There was an odd little hump, almost a dome, midway down the lobster's back — the center of the expanded nervous system, perhaps.

The lobsters clustered solemnly about McCulloch's host and each lightly tapped its claws against those of the adjoining lobster in a sort of

handshake, a process that seemed to take quite some time. McCulloch became aware also that a conversation was under way.

What they were talking about, he realized, was him.

"It is not painful to have a McCulloch within one," his host was explaining. "It came upon me at molting time, and that gave me a moment of difficulty, molting being what it is. But it was only a moment. After that my only concern was for the McCulloch's comfort."

"And it is comfortable now?"

"It is becoming more comfortable."

"When will you show it to us?"

"Ah, that cannot be done. It has no real existence, and therefore I cannot bring it forth."

"What is it, then? A wanderer? A revenant?"

"A revenant, yes. So I think. And a wanderer. It says it is a human being."

"And what is that? Is a human being a kind of McCulloch?"

"I think a McCulloch is a kind of human being."

"Which is a revenant."

"Yes, I think so."

"This is an Omen!"

"Where is its world?"

"Its world is lost to it."

"Yes, definitely an Omen."

"It lived on dry land."

"It breathed air."

"It wore its shell within its body."

"What a strange revenant!"

"What a strange world its world must have been."

"It is the former world, would you not say?"

"So I surely believe. And therefore this is an Omen."

"Ah, we shall Molt. We shall Molt."

McCulloch was altogether lost. He was not even sure when his own host was the speaker.

"Is it the Time?"

"We have an Omen, do we not?"

"The McCulloch surely was sent as a herald."

"There is no precedent."

"Each Molting, though, is without precedent. We cannot conceive what came before. We cannot imagine what comes after. We learn by learning. The McCulloch is the herald. The McCulloch is the Omen."

"I think not. I think it is unreal and unimportant."

"Unreal, yes. But not unimportant."

"The Time is not at hand. The Molting of the World is not yet due. The human is a wanderer and a revenant, but not a herald and certainly

not an Omen."

"It comes from the former world."

"It says it does. Can we believe that?"

"It breathed air. In the former world, perhaps there were creatures that breathed air."

"It says it breathed air. I think it is neither herald nor Omen, neither wanderer nor revenant. I think it is a myth and a fuge. I think it betokens nothing. It is an accident. It is an interruption."

"That is an uncivil attitude. We have much to learn from the McCulloch. And if it is an Omen, we have immediate responsibilities that must be fulfilled."

"But how can we be certain of what it is?"

— *May I speak?* said McCulloch to his host.

— *Of course.*

— *How can I make myself heard?*

— *Speak through me.*

"The McCulloch wishes to be heard!"

"Hear it! Hear it!"

"Let it speak!"

McCulloch said, and the host spoke the words aloud for him, "I am a stranger here, and your guest, and so I ask you to forgive me if I give offense, for I have little understanding of your ways. Nor do I know if I am a herald or an Omen. But I tell you in all truth that I am a wanderer, and that I am sent from the former world, where there are many creatures of my kind, who breathe air and live upon the land and carry their — shells — inside their body."

"An Omen, certainly," said several of the lobsters at once. "A herald, beyond doubt."

McCulloch continued, "It was our hope to discover something of the worlds that are to come after ours. And therefore I was sent forward —"

"A herald — certainly a herald!"

"— to come to you, to go among you, to learn to know you, and then to return to my own people, the air-people, the human people, and bring the word of what is to come. But I think that I am not the herald you expect. I carry no message for you. We could not have known that you were here. Out of the former world I bring you the blessing of those that have gone before, however, and when I go back to that world I will bear tidings of your life, of your thought, of your ways —"

"Then our kind is unknown to your world?"

McCulloch hesitated. "Creatures somewhat like you do exist in the seas of the former world. But they are smaller and simpler than you, and I think their civilization, if they have one, is not a great one."

"You have no discourse with them, then?" one of the lobsters asked.

"Very little," he said. A miserable evasion, cowardly, vile. McCulloch

shivered. He imagined himself crying out, "We eat them!" and the water turning black with their shocked outbursts — and saw them instantly falling upon him, swiftly and efficiently slicing him to scraps with their claws. Through his mind ran monstrous images of lobsters in tanks, lobsters boiling alive, lobsters smothered in rich sauces, lobsters shelled, lobsters minced, lobsters rendered into bisques — he could not halt the torrent of dreadful visions. Such was our discourse with your ancestors. Such was our mode of interspecies communication. He felt himself drowning in guilt and shame and fear.

The spasm passed. The lobsters had not stirred. They continued to regard him with patience: impassive, unmoving, remote. McCulloch wondered if all that had passed through his mind just then had been transmitted to his host. Very likely; the host earlier had seemed to have access to all of his thoughts, though McCulloch did not have the same entree to the host's. And if the host knew, did all the others? What then, what then?

Perhaps they did not even care. Lobsters, he recalled, were said to be callous cannibals, who might attack one another in the very tanks where they were awaiting their turns in the chef's pot. It was hard to view these detached and aloof beings, these dons, these monks, as having that sort of ferocity: but yet he had seen them go to work on that swimming mouth-creature without any show of embarrassment, and perhaps some atavistic echo of their ancestors' appetites lingered in them, so that they would think it only natural that McCullochs and other humans had fed on such things as lobsters. Why should they be shocked? Perhaps they thought that humans fed on humans, too. It was all in the former world, was it not? And in any event it was foolish to fear that they would exact some revenge on him for Lobster Thermidor, no matter how appalled they might be. He wasn't here. He was nothing more than a figment, a revenant, a wanderer, a set of intrusive neural networks within their companion's brain. The worst they could do to him, he supposed, was to exorcise him, and send him back to the former world.

Even so, he could not entirely shake the guilt and the shame. Or the fear.

Bleier said, "Of course, you aren't the only one who's going to be in jeopardy when we throw the switch. There's your host to consider. One entire human ego slamming into his mind out of nowhere like a brick falling off a building — what's it going to do to him?"

"Flip him out, is my guess," said Jake Ybarra. "You'll land on him and he'll announce he's Napoleon, or Joan of Arc, and they'll hustle him off to the nearest asylum. Are you prepared for the possibility, Jim, that you're going to spend your entire time in the future sitting in a loony-bin undergoing therapy?"

"Or exorcism," Mortenson suggested. "If there's been some kind of reversion to barbarism. Christ, you might even get your host burned at the stake!"

"I don't think so," McCulloch said quietly. "I'm a lot more optimistic than you guys. I don't expect to land in a world of witch-doctors and mumbo-jumbo, and I don't expect to find myself in a place that locks people up in Bedlam because they suddenly start acting a little strange. The chances are that I *am* going to unsettle my host when I enter him, but that he'll simply get two sanity-stabilizer pills from his medicine chest and take them with a glass of water and feel better in five minutes. And then I'll explain what's happening to him."

"More than likely no explanations will be necessary," said Maggie Caldwell. "By the time you arrive, time travel will have been a going proposition for three or four generations, after all. Having a traveler from the past turn up in your head will be old stuff to them. Your host will probably know exactly what's going on from the moment you hit him."

"Let's hope so," Bleier said. He looked across the laboratory to Rodrigues. "What's the count, Bob?"

"T minus eighteen minutes."

"I'm not worried about a thing," McCulloch said.

Caldwell took his hand in hers. "Neither am I, Jim."

"Then why is your hand so cold?" he asked.

"So I'm a *little* worried," she said.

McCulloch grinned. "So am I. A little. Only a little."

"You're human, Jim. No one's ever done this before."

"It'll be a can of corn!" Ybarra said.

Bleier looked at him blankly. "What the hell does that mean, Jake?"

Ybarra said, "Archaic twentieth-century slang. It means it's going to be a lot easier than we think."

"I told you," said McCulloch, "I'm not worried."

"I'm still worried about the impact on the host," said Bleier.

"All those Napoleons and Joans of Arc that have been cluttering the asylums for the last few hundred years," Maggie Caldwell said. "Could it be that they're really hosts for time-travelers going backward in time?"

"You can't go backward," said Mortenson. "You know that. The round trip has to begin with a forward leap."

"Under present theory," Caldwell said. "But present theory's only five years old. It may turn out to be incomplete. We may have had all sorts of travelers out of the future jumping through history, and never even knew it. All the nuts, lunatics, inexplicable geniuses, idiot-savants —"

"Save it, Maggie," Bleier said. "Let's stick to what we understand right now."

"Oh? Do we understand anything?" McCulloch asked.

Bleier gave him a sour look. "I thought you said you weren't worried."

"I'm not. Not much. But I'd be a fool if I thought we really had a firm handle on what we're doing. We're shooting in the dark, and let's never kid ourselves about it."

"T minus fifteen," Rodrigues called.

"Try to make the landing easy on your host, Jim," Bleier said.

"I've got no reason not to want to," said McCulloch.

He realized that he had been wandering. Bleier, Maggie, Mortenson, Ybarra — for a moment they had been more real to him than the congregation of lobsters. He had heard their voices, he had seen their faces, Bleier plump and perspiring and serious, Ybarra dark and lean, Maggie with her crown of short upswept red hair blazing in the laboratory light — and yet they were all dead, a hundred million years dead, two hundred million, back there with the triceratops and the trilobite in the drowned former world, and here he was among the lobster-people. How futile all those discussions of what the world of the early twenty-second century was going to be like! Those speculations on population density, religious belief, attitudes toward science, level of technological achievement, all those late-night sessions in the final months of the project, designed to prepare him for any eventuality he might encounter while he was visiting the future — what a waste, what a needless exercise. As was all that fretting about upsetting the mental stability of the person who would receive his transtemporalized consciousness. Such qualms, such moral delicacy — all unnecessary, McCulloch knew now.

But of course they had not anticipated sending him so eerily far across the dark abysm of time, into a world in which humankind and all its works were not even legendary memories, and the host who would receive him was a calm and thoughtful crustacean capable of taking him in with only the most mild and brief disruption of its serenity.

The lobsters, he noticed now, had reconfigured themselves while his mind had been drifting. They had broken up their circle and were arrayed in a long line stretching over the ocean floor, with his host at the end of the procession. The queue was a close one, each lobster so close to the one before it that it could touch it with the tips of its antennae, which from time to time they seemed to be doing; and they all were moving in a weird kind of quasi-military lockstep, every lobster swinging the same set of walking-legs forward at the same time.

— *Where are we going?* McCulloch asked his host.

— *The pilgrimage has begun.*

— *What pilgrimage is that?*

— *To the dry place,* said the host. *To the place of no water. To the land.*

— *Why?*

— *It is the custom. We have decided that the time of the Molting of the World is soon to come; and therefore we must make the pilgrimage. It is the*

*end of all things. It is the coming of a newer world. You are the herald: so we have agreed.*

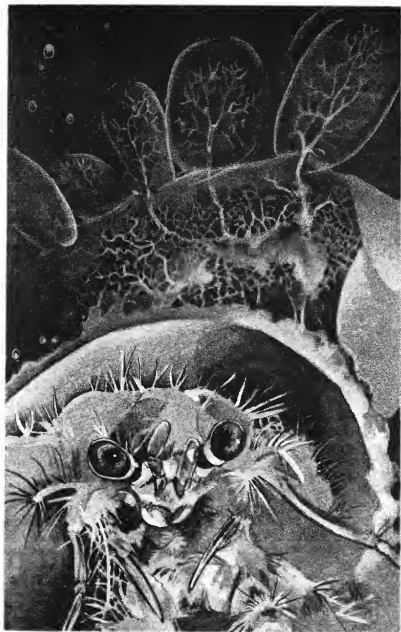
*— Will you explain? I have a thousand questions. I need to know more about all this,* McCulloch said.

*— Soon. Soon. This is not a time for explanations.*

McCulloch felt a firm and unequivocal closing of contact, an emphatic withdrawal. He sensed a hard ringing silence that was almost an absence of the host, and knew it would be inappropriate to transgress against it. That was painful, for he brimmed now with an overwhelming rush of curiosity. The Molting of the World? The end of all things? A pilgrimage to the land? *What* land? *Where*? But he did not ask. He could not ask. The host seemed to have vanished from him, disappearing utterly into this pilgrimage, this migration, moving in its lockstep way with total concentration and a kind of mystic intensity. McCulloch did not intrude. He felt as though he had been left alone in the body they shared.

As they marched, he concentrated on observing, since he could not interrogate. And there was much to see; for the longer he dwelled within his host, the more accustomed he grew to the lobster's sensory mechanisms. The compound eyes, for instance. Enough of his former life had returned to him now so that he remembered human eyes clearly, those two large gleaming ovals, so keen, so subtle of focus, set beneath protecting ridges of bone. His host's eyes were nothing like that: they were two clusters of tiny lenses rising on jointed, movable stalks, and what they showed was an intricately dissected view, a mosaic of isolated points of light. But he was learning somehow to translate those complex and baffling images into a single clear one, just as, no doubt, a creature accustomed to compound-lens vision would sooner or later learn to see through human eyes, if need be. And McCulloch found now that he could not only make more sense out of the views he received through his host's eyes, but that he was seeing farther, into quite distant dim recesses of this sunless undersea realm.

Not that the stalked eyes seemed to be a very important part of the lobster's perceptive apparatus. They provided nothing more than a certain crude awareness of the immediate terrain. But apparently the real work of perceiving was done mainly by the thousands of fine bristles, so minute that they were all but invisible, that sprouted on every surface of his host's body. These seemed to send a constant stream of messages to the lobster's brain: information on the texture and topography of the ocean floor, on tiny shifts in the flow and temperature of the water, of the proximity of obstacles, and much else. Some of the small hairlike filaments were sensitive to touch and others, it appeared, to chemicals; for whenever the lobster approached some other life-form, it received data on its scent — or the underwater equivalent — long before the creature itself was within visual range. The quantity and richness of these inputs



astonished McCulloch. At every moment came a torrent of data corresponding to the landside senses he remembered, smell, taste, touch; and some central processing unit within the lobster's brain handled everything in the most effortless fashion.

But there was no sound. The ocean world appeared to be wholly silent. McCulloch knew that that was untrue, that sound waves propagated through water as persistently as through air; indeed, faster. Yet the lobster seemed neither to possess nor to need any sort of auditory equipment. The sensory bristles brought in all the data it required. The "speech" of these creatures, McCulloch had long ago realized, was effected not by voice but by means of spurts of chemicals released into the water, hormones, perhaps, or amino acids, something of a distinct and readily recognizable identity, emitted in some high-redundancy pattern that permitted easy recognition and decoding despite the difficulties caused by currents and eddies. It was, McCulloch thought, like trying to communicate by printing individual letters on scraps of paper and hurling them into the wind. But it did somehow seem to work, however clumsy a concept it might be, because of the extreme sensitivity of the lobster's myriad chemoreceptors.

The antennae played some significant role also. There were two sets of them, a pair of three-branched ones just behind the eyes and a much longer single-branched pair behind those. The long ones restlessly twitched and probed inquisitively and most likely, he suspected, served as simple balancing and coordination devices much like the whiskers of a cat. The purpose of the smaller antennae eluded him, but it was his guess that they were involved in the process of communication between one lobster and another, either by some semaphore system or in a deeper communion beyond his still awkward comprehension.

McCulloch regretted not knowing more about the lobsters of his own era. But he had only a broad general knowledge of natural history, extensive, fairly deep, yet not good enough to tell him whether these elaborate sensory functions were characteristic of all lobsters or had evolved during the millions of years it had taken to create the water-world. Probably some of each, he decided. Very likely even the lobsters of the former world had had much of this scanning equipment, enough to allow them to locate their prey, to find their way around in the dark suboceanic depths, to undertake their long and unerring migrations. But he found it hard to believe that they could have had much "speech" capacity, that they gathered in solemn sessions to discuss abstruse questions of theology and mythology, to argue gently about omens and heralds and the end of all things. That was something that the patient and ceaseless unfoldings of time must have wrought.

The lobsters marched without show of fatigue: not scampering in that dancelike way that his host had adopted while summoning its comrades to

save it from the swimming creature, but moving nevertheless in an elegant and graceful fashion, barely touching the ground with the tips of their legs, going onward, step by step by step, steadily and fairly swiftly.

McCulloch noticed that new lobsters frequently joined the procession, cutting in from left or right just ahead of his host, who always remained at the rear of the line; that line now was so long, hundreds of lobsters long, that it was impossible to see its beginning. Now and again one would reach out with its bigger claw to seize some passing animal, a starfish or urchin or small crab, and without missing a step would shred and devour it, tossing the unwanted husk to the cloud of planktonic scavengers that always hovered nearby. This foraging on the march was done with utter lack of self-consciousness; it was almost by reflex that these creatures snatched and gobbled as they journeyed.

And yet all the same they did not seem like mere marauding mouths. From this long line of crustaceans there emanated, McCulloch realized, a mysterious sense of community, a wholeness of society, that he did not understand but quite sharply sensed. This was plainly not a mere migration but a true pilgrimage. He thought ruefully of his earlier condescending view of these people, incapable of achieving the Taj Mahal or the Sistine Chapel, and felt abashed: for he was beginning to see that they had other accomplishments of a less tangible sort that were only barely apparent to his displaced and struggling mind.

"When you come back," Maggie said, "you'll be someone else. There's no escaping that. It's the one thing I'm frightened of. Not that you'll die making the hop, or that you'll get into some sort of terrible trouble in the future, or that we won't be able to bring you back at all, or anything like that. But that you'll have become someone else."

"I feel pretty secure in my identity," McCulloch told her.

"I know you do. God knows, you're the most stable person in the group, and that's why you're going. But even so. Nobody's ever done anything like this before. It can't help but change you. When you return, you're going to be unique among the human race."

"That sounds very awesome. But I'm not sure it'll matter that much, Mag. I'm just taking a little trip. If I were going to Paris, or Istanbul, or even Antarctica, would I come back totally transformed? I'd have had some new experiences, but —"

"It isn't the same," she said. "It isn't even remotely the same." She came across the room to him and put her hands on his shoulders, and stared deep into his eyes, which sent a little chill through him, as it always did; for when she looked at him that way there was a sudden flow of energy between them, a powerful warm rapport rushing from her to him and from him to her as though through a huge conduit, that delighted and frightened him both at once. He could lose himself in her. He had never

let himself feel that way about anyone before. And this was not the moment to begin. There was no room in him for such feelings, not now, not when he was within a couple of hours of leaping off into the most unknown of unknowns. When he returned — if he returned — he might risk allowing something at last to develop with Maggie. But not on the eve of departure, when everything in his universe was tentative and conditional. “Can I tell you a little story, Jim?” she asked.

“Sure.”

“When my father was on the faculty at Cal, he was invited to a reception to meet a couple of the early astronauts, two of the Apollo men — I don’t remember which ones, but they were from the second or third voyage to the Moon. When he showed up at the faculty club, there were two or three hundred people there, milling around having cocktails, and most of them were people he didn’t know. He walked in and looked around and within ten seconds he had found the astronauts. He didn’t have to be told. He just *knew*. And this is my father, remember, who doesn’t believe in ESP or anything like that. But he said they were impossible to miss, even in that crowd. You could see it on their faces, you could feel the radiance coming from them, there was an aura, there was something about their eyes. Something that said, *I have walked on the Moon, I have been to that place which is not of our world and I have come back, and now I am someone else. I am who I was before, but I am someone else also.*”

“But they went to the *Moon*, Mag!”

“And you’re going to the *future*, Jim. That’s even weirder. You’re going to a place that doesn’t exist. And you may meet yourself there — ninety-nine years old, and waiting to shake hands with you — or you might meet me, or your grandson, or find out that everyone on Earth is dead, or that everyone has turned into a disembodied spirit, or that they’re all immortal superbeings, or — or — Christ, I don’t know. You’ll see a world that nobody alive today is supposed to see. And when you come back, you’ll have that aura. You’ll be transformed.”

“Is that so frightening?”

“To me it is,” she said.

“Why is that?”

“Dummy,” she said. “Dope. How explicit do I have to be, anyway? I thought I was being obvious enough.”

He could not meet her eyes. “This isn’t the best moment to talk about —”

“I know. I’m sorry, Jim. But you’re important to me, and you’re going somewhere and you’re going to become someone else, and I’m scared. Selfish and scared.”

“Are you telling me not to go?”

“Don’t be absurd. You’d go no matter what I told you, and I’d despise

you if you didn't. There's no turning back now."

"No."

"I shouldn't have dumped any of this on you today. You don't need it right this moment."

"It's okay," he said softly. He turned until he was looking straight at her, and for a long moment he simply stared into her eyes and did not speak, and then at last he said, "Listen, I'm going to take a big fantastic improbable insane voyage, and I'm going to be a witness to God knows what, and then I'm going to come back and yes, I'll be changed — only an ox wouldn't be changed, or maybe only a block of stone — but I'll still be me, whoever *me* is. Don't worry, okay? I'll still be me. And we'll still be us."

"Whoever *us* is."

"Whoever. Jesus, I wish you were going with me, Mag!"

"That's the silliest schoolboy thing I've ever heard you say."

"True, though."

"Well, I can't go. Only one at a time can go, and it's you. I'm not even sure I'd want to go. I'm not as crazy as you are, I suspect. You go, Jim, and come back and tell me all about it."

"Yes."

"And then we'll see what there is to see about you and me."

"Yes," he said.

She smiled. "Let me show you a poem, okay? You must know it, because it's Eliot, and you know all the Eliot there is. But I was reading him last night — thinking of you, reading him — and I found this, and it seemed to be the right words, and I wrote them down. From one of the *Quartets*."

"I think I know," he said:

"*'Time past and time future  
Allow but a little consciousness —'* "

"That's a good one too," Maggie said. "But it's not the one I had in mind." She unfolded a piece of paper. "It's this:

"*'We shall not cease from exploration  
And the end of all our exploring  
Will be to arrive where we started —'* "

"— *And know the place for the first time,* " he completed. "Yes. Exactly. To arrive where we started. And know the place for the first time."

The lobsters were singing as they marched. That was the only word, McCulloch thought, that seemed to apply. The line of pilgrims now was immensely long — there must have been thousands in the procession by this time, and more were joining constantly — and from them arose an outpouring of chemical signals, within the narrowest of tonal ranges, that

mingled in a close harmony and amounted to a kind of sustained chant on a few notes, swelling, filling all the ocean with its powerful and intense presence. Once again he had an image of them as monks, but not Benedictines, now: these were Buddhist, rather, an endless line of yellow-robed holy men singing a great Om as they made their way up some Tibetan slope. He was awed and humbled by it — by the intensity, and by the wholeheartedness of the devotion. It was getting hard for him to remember that these were crustaceans, no more than ragged claws scuttling across the floors of silent seas; he sensed minds all about him, whole and elaborate minds arising out of some rich cultural matrix, and it was coming to seem quite natural to him that these people should have armored exoskeletons and jointed eye-stalks and a dozen busy legs.

His host had still not broken its silence, which must have extended now over a considerable period. Just how long a period, McCulloch had no idea, for there were no significant alternations of light and dark down here to indicate the passing of time, nor did the marchers ever seem to sleep, and they took their food, as he had seen, in a casual and random way without breaking step. But it seemed to McCulloch that he had been effectively alone in the host's body for many days.

He was not minded to try to re-enter contact with the other just yet — not until he received some sort of signal from it. Plainly the host had withdrawn into some inner sanctuary to undertake a profound meditation; and McCulloch, now that the early bewilderment and anguish of his journey through time had begun to wear off, did not feel so dependent upon the host that he needed to blurt his queries constantly into his companion's consciousness. He would watch, and wait, and attempt to fathom the mysteries of this place unaided.

The landscape had undergone a great many changes since the beginning of the march. That gentle bottom of fine white sand had yielded to a terrain of rough dark gravel, and that to one of a pale sedimentary stuff made up of tiny shells, the mortal remains, no doubt, of vast hordes of diatoms and foraminifera, that rose like clouds of snowflakes at the lobsters' lightest steps. Then came a zone where a stratum of thick red clay spread in all directions. The clay held embedded in it an odd assortment of rounded rocks and clamshells and bits of chitin, so that it had the look of some complex paving material from a fashionable terrace. And after that they entered a region where slender spires of a sharp black stone, faceted like worked flint, sprouted stalagmite-fashion at their feet. Through all of this the lobster-pilgrims marched unperturbed, never halting, never breaking their file, moving in a straight line whenever possible and making only the slightest of deviations when compelled to it by the harshness of the topography.

Now they were in a district of coarse yellow sandy globules, out of which two types of coral grew: thin angular strands of deep jet, and

supple, almost mobile fingers of a rich lovely salmon hue. McCulloch wondered where on Earth such stuff might be found, and chided himself at once for the foolishness of the thought: the seas he knew had been swallowed long ago in the great all-encompassing ocean that swathed the world, and the familiar continents, he supposed, had broken from their moorings and slipped to strange parts of the globe well before the rising of the waters. He had no landmarks. There was an equator somewhere, and there were two poles, but down here beyond the reach of direct sunlight, in this warm changeless uterine sea, neither north nor south nor east held any meaning. He remembered other lines:

*Sand-strewn caverns, cool and deep  
Where the winds are all asleep;  
Where the spent lights quiver and gleam;  
Where the salt weed sways in the stream;  
Where the sea-beasts rang'd all round  
Feed in the ooze of their pasture-ground . . .*

What was the next line? Something about great whales coming sailing by, sail and sail with unshut eye, round the world for ever and aye. Yes, but there were no great whales here, if he understood his host correctly, no dolphins, no sharks, no minnows; there were only these swarming lower creatures, mysteriously raised on high, lords of the world. And mankind? Birds and bats, horses and bears? Gone. Gone. And the valleys and meadows? The lakes and streams? Taken by the sea. The world lay before him like a land of dreams, transformed. But was it, as the poet had said, a place which hath really neither joy, nor love, nor light, nor certitude, nor peace, nor help for pain? It did not seem that way. For light there was merely that diffuse faint glow, so obscure it was close to nonexistent, that filtered down through unknown fathoms. But what was that lobster-song, that ever-swelling crescendo, if not some hymn to love and certitude and peace, and help for pain? He was overwhelmed by peace, surprised by joy, and he did not understand what was happening to him. He was part of the march, that was all. He was a member of the pilgrimage.

He had wanted to know if there was any way he could signal to be pulled back home: a panic button, so to speak. Bleier was the one he asked, and the question seemed to drive the man into an agony of uneasiness. He scowled, he tugged at his jowls, he ran his hands through his sparse strands of hair.

"No," he said finally. "We weren't able to solve that one, Jim. There's simply no way of propagating a signal backward in time."

"I didn't think so," McCulloch said. "I just wondered."

"Since we're not actually sending your physical body, you shouldn't find yourself in any real trouble. Psychic discomfort, at the worst — disorientation, emotional upheaval, at the worst a sort of terminal homesickness. But I think you're strong enough to pull your way through any of that. And you'll always know that we're going to be yanking you back to us at the end of the experiment."

"How long am I going to be gone?"

"Elapsed time will be virtually nil. We'll throw the switch, off you'll go, you'll do your jaunt, we'll grab you back, and it'll seem like no time at all, perhaps a thousandth of a second. We aren't going to believe that you went anywhere at all, until you start telling us about it."

McCulloch sensed that Bleier was being deliberately evasive, not for the first time since McCulloch had been selected as the time-traveler. "It'll seem like no time at all to the people watching in the lab," he said. "But what about for me?"

"Well, of course for you it'll be a little different, because you'll have had a subjective experience in another time-frame."

"That's what I'm getting at. How long are you planning to leave me in the future? An hour? A week?"

"That's really hard to determine, Jim."

"What does that mean?"

"You know, we've sent only rabbits and stuff. They've come back okay, beyond much doubt —"

"Sure. They still munch on lettuce when they're hungry, and they don't tie their ears together in knots before they hop. So I suppose they're none the worse for wear."

"Obviously we can't get much of a report from a rabbit."

"Obviously."

"You're sounding awfully goddamned hostile today, Jim. Are you sure you don't want us to scrub the mission and start training another volunteer?" Bleier asked.

"I'm just trying to elicit a little hard info," McCulloch said. "I'm not trying to back out. And if I sound hostile, it's only because you're dancing all around my questions, which is becoming a considerable pain in the ass."

Bleier looked squarely at him and glowered. "All right. I'll tell you anything you want to know that I'm capable of answering. Which is what I think I've been doing all along. When the rabbits come back, we test them and we observe no physiological changes, no trace of ill effects as a result of having separated the psyche from the body for the duration of a time-jaunt. Christ, we can't even tell the rabbits *have* been on a time-jaunt, except that our instruments indicate the right sort of thermodynamic drain and entropic reversal, and for all we know we're kidding ourselves about that, which is why we're risking our reputations and your

neck to send a human being who can tell us what the heck happens when we throw the switch. But you've seen the rabbits jaunting. You know as well as I do that they come back okay."

Patiently McCulloch said, "Yes. As okay as a rabbit ever is, I guess. But what I'm trying to find out from you, and what you seem unwilling to tell me, is how long I'm going to be up there in subjective time."

"We don't know, Jim," Bleier said.

"You don't *know*? What if it's ten years? What if it's a thousand? What if I'm going to live out an entire life-span, or whatever is considered a life-span a hundred years from now, and grow old and wise and wither away and die and then wake up a thousandth of a second later on your lab table?"

"We don't know. That's why we have to send a human subject."

"There's no way to measure subjective jaunt-time?"

"Our instruments are here. They aren't *there*. You're the only instrument we'll have there. For all we know, we're sending you off for a million years, and when you come back here you'll have turned into something out of H. G. Wells. Is that straightforward enough for you, Jim? But I don't think it's going to happen that way, and Mortenson doesn't think so either, or Ybarra for that matter. What we think is that you'll spend something between a day and a couple of months in the future, with the outside possibility of a year. And when we give you the hook, you'll be back here with virtually nil elapsed time. But to answer your first question again, there's no way you can instruct us to yank you back. You'll just have to sweat it out, however long it may be. I thought you knew that. The hook, when it comes, will be virtually automatic, a function of the thermodynamic homeostasis, like the recoil of a gun. An equal and opposite reaction: or maybe more like the snapping back of a rubber band. Pick whatever metaphor you want. But if you don't like the way any of this sounds, it's not too late for you to back out, and nobody will say a word against you. It's never too late to back out. Remember that, Jim."

McCulloch shrugged. "Thanks for leveling with me. I appreciate that. And no, I don't want to drop out. The only thing I wonder about is whether my stay in the future is going to seem too long or too goddamned short. But I won't know that until I get there, will I? And then the time I have to wait before coming home is going to be entirely out of my hands. And out of yours too, is how it seems. But that's all right. I'll take my chances. I just wondered what I'd do if I got there and found that I didn't much like it there."

"My bet is that you'll have the opposite problem," said Bleier. "You'll like it so much you won't want to come back."

Again and again, while the pilgrims traveled onward, McCulloch detected bright flares of intelligence gleaming like brilliant pinpoints of

light in the darkness of the sea. Each creature seemed to have a characteristic emanation, a glow of neural energy. The simple ones — worms, urchins, starfish, sponges — emitted dim gentle signals; but there were others as dazzling as beacons. The lobster-folk were not the only sentient life-forms down here.

Occasionally he saw, as he had in the early muddled moments of the jaunt, isolated colonies of the giant sea anemones: great flowery-looking things, rising on thick pedestals. From them came a soft alluring lustful purr, a siren crooning calculated to bring unwary animals within reach of their swaying tentacles and the eager mouths hidden within the fleshy petals. Cemented to the floor on their swaying stalks, they seemed like somber philosophers, lost in the intervals between meals in deep reflections on the purpose of the cosmos. McCulloch longed to pause and try to speak with them, for their powerful emanation appeared plainly to indicate that they possessed a strong intelligence, but the lobsters moved past the anemones without halting.

The squid-like beings that frequently passed in flotillas overhead seemed even keener of mind: large animals, sleek and arrogant of motion, with long turquoise bodies that terminated in hawser-like arms, and enormous bulging eyes of a startling scarlet color. He found them ugly and repugnant, and did not quite know why. Perhaps it was some attitude of his host's that carried over subliminally to him; for there was an unmistakable chill among the lobsters whenever the squids appeared, and the chanting of the marchers grew more vehement, as though betokening a warning.

That some kind of frosty detente existed between the two kinds of life-forms was apparent from the regard they showed one another and from the distances they maintained. Never did the squids descend into the ocean-floor zone that was the chief domain of the lobsters, but for long spans of time they would soar above, in a kind of patient aerial surveillance, while the lobsters, striving ostentatiously to ignore them, betrayed discomfort by quickened movements of their antennae.

Still other kinds of high-order intelligence manifested themselves as the pilgrimage proceeded. In a zone of hard and rocky terrain McCulloch felt a new and distinctive mental pulsation, coming from some creature that he must not have encountered before. But he saw nothing unusual: merely a rough grayish landscape pockmarked by dense clumps of oysters and barnacles, some shaggy outcroppings of sponges and yellow seaweeds, a couple of torpid anemones. Yet out of the midst of all that unremarkable clutter came clear strong signals, produced by minds of considerable force. Whose? Not the oysters and barnacles, surely. The mystery intensified as the lobsters, without pausing in their march, interrupted their chant to utter words of greeting, and had greetings in return, drifting toward them from that tangle of marine underbrush.

"Why do you march?" the unseen speakers asked, in a voice that rose in the water like a deep slow groaning.

"We have had an Omen," answered the lobsters.

"Ah, is it the Time?"

"The Time will surely be here," the lobsters replied.

"Where is the herald, then?"

"The herald is within me," said McCulloch's host, breaking its long silence at last.

— *To whom do you speak?* McCulloch asked.

— *Can you not see? There. Before us.*

McCulloch saw only algae, barnacles, sponges, oysters.

— *Where?*

— *In a moment you will see,* said the host.

The column of pilgrims had continued all the while to move forward, until now it was within the thick groves of seaweed. And now McCulloch saw who the other speakers were. Huge crabs were crouched at the bases of many of the larger rock formations, creatures far greater in size than the largest of the lobsters; but they were camouflaged so well that they were virtually invisible except at the closest range. On their broad arching backs whole gardens grew: brilliantly colored sponges, algae in somber reds and browns, fluffy many-branched crimson things, odd complex feathery growths, even a small anemone or two, all jammed together in such profusion that nothing of the underlying crab showed except beady long-stalked eyes and glinting claws. Why beings that signalled their presence with potent telepathic outputs should choose to cloak themselves in such elaborate concealments, McCulloch could not guess: perhaps it was to deceive a prey so simple that it was unable to detect the emanations of these crabs' minds.

As the lobsters approached, the crabs heaved themselves up a little way from the rocky bottom, and shifted themselves ponderously from side to side, causing the intricate streamers and filaments and branches of the creatures growing on them to stir and wave about. It was like a forest agitated by a sudden hard gust of wind from the north.

"Why do you march, why do you march?" called the crabs. "Surely it is not yet the Time. Surely!"

"Surely it is," the lobsters replied. "So we all agree. Will you march with us?"

"Show us your herald!" the crabs cried. "Let us see the Omen!"

— *Speak to them,* said McCulloch's host.

— *But what am I to say?*

— *The truth. What else can you say?*

— *I know nothing. Everything here is a mystery to me.*

— *I will explain all things afterward. Speak to them now.*

— *Without understanding?*

— *Tell them what you told us.*

Baffled, McCulloch said, speaking through the host, "I have come from the former world as an emissary. Whether I am a herald, whether I bring an Omen, is not for me to say. In my own world I breathed air and carried my shell within my body."

"Unmistakably a herald," said the lobsters.

To which the crabs replied, "That is not so unmistakable to us. We sense a wanderer and a revenant among you. But what does that mean? The Molting of the World is not a small thing, good friends. Shall we march, just because this strangeness is come upon you? It is not enough evidence. And to march is not a small thing either, at least for us."

"We have chosen to march," the lobsters said, and indeed they had not halted at all throughout this colloquy; the vanguard of their procession was far out of sight in a black-walled canyon, and McCulloch's host, still at the end of the line, was passing now through the last few crouching-places of the great crabs. "If you mean to join us, come now."

From the crabs came a heavy outpouring of regret. "Alas, alas, we are large, we are slow, the way is long, the path is dangerous."

"Then we will leave you."

"If it is the Time, we know that you will perform the offices on our behalf. If it is not the Time, it is just as well that we do not make the pilgrimage. We are — not — certain. We — cannot — be — sure — it — is — an — Omen —"

McCulloch's host was far beyond the last of the crabs. Their words were faint and indistinct, and the final few were lost in the gentle surgings of the water.

— *They make a great error, said McCulloch's host to him. If it is truly the Time, and they do not join the march, it might happen that their souls will be lost. That is a severe risk: but they are a lazy folk. Well, we will perform the offices on their behalf.*

And to the crabs the host called, "We will do all that is required, have no fear!" But it was impossible, McCulloch thought, that the words could have reached the crabs across such a distance.

He and the host now were entering the mouth of the black canyon. With the host awake and talkative once again, McCulloch meant to seize the moment at last to have some answers to his questions.

— *Tell me now* — he began.

But before he could complete the thought, he felt the sea roil and surge about him as though he had been swept up in a monstrous wave. That could not be, not at this depth; but yet that irresistible force, booming toward him out of the dark canyon and catching him up, hurled him into a chaos as desperate as that of his moment of arrival. He sought to cling, to grasp, but there was no purchase; he was loose of his moorings; he was tossed and flung like a bubble on the winds.

— *Help me!* he called. *What's happening to us?*

— *To you, friend human McCulloch. To you alone. Can I aid you?*

What was that? Happening only to him? But certainly he and the lobster both were caught in this undersea tempest, both being thrown about, both whirled in the same maelstrom —

Faces danced around him. Charlie Bleier, pudgy, earnest-looking. Maggie, tender-eyed, troubled. Bleier had his hand on McCulloch's right wrist, Maggie on the other, and they were tugging, tugging —

But he had no wrists. He was a lobster.

"Come, Jim —"

"No! Not yet!"

"Jim — Jim —"

"Stop — pulling — you're hurting —"

"Jim —"

McCulloch struggled to free himself from their grasp. As he swung his arms in wild circles, Maggie and Bleier, still clinging to them, went whipping about like tethered balloons. "Let go," he shouted. "You aren't here! There's nothing for you to hold on to! You're just hallucinations! Let — go —!"

And then, as suddenly as they had come, they were gone.

The sea was calm. He was in his accustomed place, seated somewhere deep within his host's consciousness. The lobster was moving forward, steady as ever, into the black canyon, following the long line of its companions.

McCulloch was too stunned and dazed to attempt contact for a long while. Finally, when he felt some measure of composure return, he reached his mind into his host's:

— *What happened?*

— *I cannot say. What did it seem like to you?*

— *The water grew wild and stormy. I saw faces out of the former world. Friends of mine. They were pulling at my arms. You felt nothing?*

— *Nothing, said the host, except a sense of your own turmoil. We are deep here: beyond the reach of storms.*

— *Evidently I'm not.*

— *Perhaps your homefaring-time is coming. Your world is summoning you.*

Of course! The faces, the pulling at his arms — the plausibility of the host's suggestion left McCulloch trembling with dismay. Homefaring-time! Back there in the lost and inconceivable past, they had begun angling for him, casting their line into the vast gulf of time —

— *I'm not ready, he protested. I've only just arrived here! I know nothing yet! How can they call me so soon?*

— *Resist them, if you would remain.*

— *Will you help me?*

— *How would that be possible?*

— *I'm not sure, McCulloch said. But it's too early for me to go back. If they pull on me again, hold me! Can you?*

— *I can try, friend human McCulloch.*

— *And you have to keep your promise to me now.*

— *What promise is that?*

— *You said you would explain things to me. Why you've undertaken this pilgrimage. What it is I'm supposed to be the Omen of. What happens when the Time comes. The Molting of the World.*

— *Ah, said the host.*

But that was all it said. In silence it scabbled with busy legs over a sharply creviced terrain. McCulloch felt a fierce impatience growing in him. What if they yanked him again, now, and this time they succeeded? There was so much yet to learn! But he hesitated to prod the host again, feeling abashed. Long moments passed. Two more squids appeared: the radiance of their probing minds was like twin searchlights overhead. The ocean floor sloped downward gradually but perceptibly here. The squids vanished, and another of the predatory big-mouthed swimming-things, looking as immense as a whale and, McCulloch supposed, filling the same ecological niche, came cruising down into the level where the lobsters marched, considered their numbers in what appeared to be some surprise, and swam slowly upward again and out of sight. Something else of great size, flapping enormous wings somewhat like those of a stingray but clearly just a boneless mass of chitin-strutted flesh, appeared next, surveyed the pilgrims with equally bland curiosity, and flew to the front of the line of lobsters, where McCulloch lost it in the darkness. While all of this was happening the host was quiet and inaccessible, and McCulloch did not dare attempt to penetrate its privacy. But then, as the pilgrims were moving through a region where huge, dim-witted scallops with great bright eyes nestled everywhere, waving gaudy pink and blue mantles, the host unexpectedly resumed the conversation as though there had been no interruption, saying:

— *What we call the Time of the Molting of the World is the time when the world undergoes a change of nature, and is purified and reborn. At such a time, we journey to the place of dry land, and perform certain holy rites.*

— *And these rites bring about the Molting of the World? McCulloch asked.*

— *Not at all. The Molting is an event wholly beyond our control. The rites are performed for our own sakes, not for the world's.*

— *I'm not sure I understand.*

— *We wish to survive the Molting, to travel onward into the world to come. For this reason, at a Time of Molting, we must make our observances, we must demonstrate our worth. It is the responsibility of my people. We bear*

*the duty for all the peoples of the world.*

— *A priestly caste, is that it?* McCulloch said. *When this cataclysm comes, the lobsters go forth to say the prayers for everyone, so that everyone's soul will survive?*

The host was silent again: pondering McCulloch's terms, perhaps, translating them into more appropriate equivalents. Eventually it replied:

— *That is essentially correct.*

— *But other peoples can join the pilgrimage if they want. Those crabs. The anemones. The squids, even?*

— *We invite all to come. But we do not expect anyone but ourselves actually to do it.*

— *How often has there been such a ceremony?* McCulloch asked.

— *I cannot say. Never, perhaps.*

— *Never?*

— *The Molting of the World is not a common event. We think it has happened only twice since the beginning of time.*

In amazement McCulloch said:

— *Twice since the world began, and you think it's going to happen again in your own lifetimes?*

— *Of course we cannot be sure of that. But we have had an Omen, or so we think, and we must abide by that. It was foretold that when the end is near, an emissary from the former world would come among us. And so it has come to pass. Is that not so?*

— *Indeed.*

— *Then we must make the pilgrimage, for if you have not brought the Omen we have merely wasted some effort, but if you are the true herald we will have forfeited all of eternity if we let your message go unheeded.*

It sounded eerily familiar to McCulloch: a messianic prophecy, a cult of the millennium, an apocalyptic transfiguration. He felt for a moment as though he had landed in the ninth century instead of in some impossibly remote future epoch. And yet the host's tone was so calm and rational, the sense of spiritual obligation that the lobster conveyed was so profound, that McCulloch found nothing absurd in these beliefs. Perhaps the world *did* end from time to time, and the performing of certain rituals did in fact permit its inhabitants to transfer their souls onward into whatever unimaginable environment was to succeed the present one. Perhaps.

— *Tell me, said McCulloch. What were the former worlds like, and what will the next one be?*

— *You should know more about the former worlds than I, friend human McCulloch. And as for the world to come, we may only speculate.*

— *But what are your traditions about those worlds?*

— *The first world, the lobster said, was a world of fire.*

— *You can understand fire, living in the sea?*

— *We have heard tales of it from those who have been to the dry place.*

*Above the water there is air, and in the air there hangs a ball of fire, which gives the world warmth. Is this not the case?*

McCulloch, hearing a creature of the ocean floor speak of things so far beyond its scope and comprehension, felt a warm burst of delight and admiration.

— *Yes! We call that ball of fire the sun.*

— *Ah, so that is what you mean, when you think of the sun! The word was a mystery to me, when first you used it. But I understand you much better now, do you not agree?*

— *You amaze me.*

— *The first world, so we think, was fire: it was like the sun. And when we dwelled upon that world, we were fire also. It is the fire that we carry within us to this day, that glow, that brightness, which is our life, and which goes from us when we die. After a span of time so long that we could never describe its length, the Time of the Molting came upon the fire-world and it grew hard, and gathered a cloak of air about itself, and creatures lived upon the land and breathed the air. I find that harder to comprehend, in truth, than I do the fire-world. But that was the first Molting, when the air-world emerged: that world from which you have come to us. I hope you will tell me of your world, friend human McCulloch, when there is time.*

— *So I will, said McCulloch. But there is so much more I need to hear from you first!*

— *Ask it.*

— *The second Molting — the disappearance of my world, the coming of yours —*

— *The tradition is that the sea existed, even in the former world, and that it was not small. At the Time of the Molting it rose and devoured the land and all that was upon it, except for one place that was not devoured, which is sacred. And then all the world was covered by water, and that was the second Molting, which brought forth the third world.*

— *How long ago was that?*

— *How can I speak of the passing of time? There is no way to speak of that. Time passes, and lives end, and worlds are transformed. But we have no words for that. If every grain of sand in the sea were one lifetime, then it would be as many lifetimes ago as there are grains of sand in the sea. But does that help you? Does that tell you anything? It happened. It was very long ago. And now our world's turn has come, or so we think.*

— *And the next world? What will that be like?* McCulloch asked.

— *There are those who claim to know such things, but I am not one of them. We will know the next world when we have entered it, and I am content to wait until then for the knowledge.*

McCulloch had a sense then that the host had wearied of this sustained contact, and was withdrawing once again from it; and, though his own

thirst for knowledge was far from sated, he chose once again not to attempt to resist that withdrawal.

All this while the pilgrims had continued down a gentle incline into the great bowl of a sunken valley. Once again now the ocean floor was level, but the water was notably deeper here, and the diffused light from above was so dim that only the most rugged of algae could grow, making the landscape bleak and sparse. There were no sponges here, and little coral, and the anemones were pale and small, giving little sign of the potent intelligence that infused their larger cousins in the shallower zones of the sea.

But there were other creatures at this level that McCulloch had not seen before. Platoons of alert, mobile oysters skipped over the bottom, leaping in agile bounds on columns of water that they squirted like jets from tubes in their dark green mantles: now and again they paused in mid-leap and their shells quickly opened and closed, snapping shut, no doubt, on some hapless larval thing of the plankton too small for McCulloch, via the lobster's imperfect vision, to detect. From these oysters came bright darting blurts of mental activity, sharp and probing: they must be as intelligent, he thought, as cats or dogs. Yet from time to time a lobster, swooping with an astonishingly swift claw, would seize one of these oysters and deftly, almost instantaneously, shuck and devour it. Appetite was no respecter of intelligence in this world of needful carnivores, McCulloch realized.

Intelligent, too, in their way, were the hordes of nearly invisible little crustaceans — shrimp of some sort, he imagined — that danced in shining clouds just above the line of march. They were ghostly things perhaps an inch long, virtually transparent, colorless, lovely, graceful. Their heads bore two huge glistening black eyes; their intestines, glowing coils running the length of their bodies, were tinged with green; the tips of their tails were an elegant crimson. They swam with the aid of a horde of busy finlike legs, and seemed almost to be mocking their stolid, plodding cousins as they marched; but these sparkling little creatures also occasionally fell victim to the lobsters' inexorable claws, and each time it was like the extinguishing of a tiny brilliant candle.

An emanation of intelligence of a different sort came from bulky animals that McCulloch noticed roaming through the gravelly foothills flanking the line of march. These seemed at first glance to be another sort of lobster, larger even than McCulloch's companions: heavily armored things with many-segmented abdomens and thick paddle-shaped arms. But then, as one of them drew nearer, McCulloch saw the curved tapering tail with its sinister spike, and realized he was in the presence of the scorpions of the sea.

They gave off a deep, almost somnolent mental wave: slow thinkers but not light ones, Teutonic ponderers, grapplers with the abstruse. There

were perhaps two dozen of them, who advanced upon the pilgrims and in quick one-sided struggles pounced, stung, slew. McCulloch watched in amazement as each of the scorpions dragged away a victim and, no more than a dozen feet from the line of march, began to gouge into its armor to draw forth tender chunks of pale flesh, without drawing the slightest response from the impassive, steadily marching column of lobsters.

They had not been so complacent when the great-mouthed swimming thing had menaced McCulloch's host; then, the lobsters had come in hordes to tear the attacker apart. And whenever one of the big squids came by, the edgy hostility of the lobsters, their willingness to do battle if necessary, was manifest. But they seemed indifferent to the scorpions. The lobsters accepted their onslaught as placidly as though it were merely a toll they must pay in order to pass through this district. Perhaps it was. McCulloch was only beginning to perceive how dense and intricate a fabric of ritual bound this submarine world together.

The lobsters marched onward, chanting in unfailing rhythm as though nothing untoward had happened. The scorpions, their hungers evidently gratified, withdrew and congregated a short distance off, watching without much show of interest as the procession went by them. By the time McCulloch's host, bringing up the rear, had gone past the scorpions, they were fighting among themselves in a lazy, half-hearted way, like playful lions after a successful hunt. Their mental emanation, sluggishly booming through the water, grew steadily more blurred, more vague, more toneless.

And then it was overlaid and entirely masked by the pulsation of some new and awesome kind of mind ahead: one of enormous power, whose output beat upon the water with what was almost a physical force, like some massive metal chain being lashed against the surface of the ocean. Apparently the source of this gigantic output still lay at a considerable distance, for, strong as it was, it grew stronger still as the lobsters advanced toward it, until at last it was an overwhelming clangor, terrifying, bewildering. McCulloch could no longer remain quiescent under the impact of that monstrous sound. Breaking through to the sanctuary of his host, he cried:

— *What is it?*

— *We are approaching a god*, the lobster replied.

— *A god, did you say?*

— *A divine presence, yes. Did you think we were the rulers of this world?*

In fact McCulloch had, assuming automatically that his time-jaunt had deposited him within the consciousness of some member of this world's highest species, just as he would have expected to have landed, had he reached the twenty-second century as intended, in the consciousness of a human rather than in a frog or a horse. But obviously the division between humanity and all sub-sentient species in his own world did not

have an exact parallel here; many races, perhaps all of them, had some sort of intelligence, and it was becoming clear that the lobsters, though a high life-form, were not the highest. He found that dismaying and even humbling; for the lobsters seemed quite adequately intelligent to him, quite the equals — for all his early condescension to them — of mankind itself. And now he was to meet one of their gods? How great a mind was a god likely to have?

The booming of that mind grew unbearably intense, nor was there any way to hide from it. McCulloch visualized himself doubled over in pain, pressing his hands to his ears, an image that drew a quizzical shaft of thought from his host. Still the lobsters pressed forward, but even they were responding now to the waves of mental energy that rippled outward from that unimaginable source. They had at last broken ranks, and were fanning out horizontally on the broad dark plain of the ocean floor, as though deploying themselves before a place of worship. Where was the god? McCulloch, striving with difficulty to see in this nearly lightless place, thought he made out some vast shape ahead, some dark entity, swollen and fearsome, that rose like a colossal boulder in the midst of the suddenly diminutive-looking lobsters. He saw eyes like bright yellow platters, gleaming furiously; he saw a huge frightful beak; he saw what he thought at first to be a nest of writhing serpents, and then realized to be tentacles, dozens of them, coiling and uncoiling with a terrible restless energy. To the host he said:

— *Is that your god?*

But he could not hear the reply, for an agonizing new force suddenly buffeted him, one even more powerful than that which was emanating from the giant creature that sat before him. It ripped upward through his soul like a spike. It cast him forth, and he tumbled over and over, helpless in some incomprehensible limbo, where nevertheless he could still hear the faint distant voice of his lobster host:

— *Friend human McCulloch? Friend human McCulloch?*

He was drowning. He had waded incautiously into the surf, deceived by the beauty of the transparent tropical water and the shimmering white sand below, and a wave had caught him and knocked him to his knees, and the next wave had come before he could arise, pulling him under. And now he tossed like a discarded doll in the suddenly turbulent sea, struggling to get his head above water and failing, failing, failing.

Maggie was standing on the shore, calling in panic to him, and somehow he could hear her words even through the tumult of the crashing waves: "This way, Jim, swim toward me! Oh, please, Jim, this way, this way!"

Bleier was there too, Mortenson, Bob Rodrigues, the whole group, ten or fifteen people, running about worriedly, beckoning to him, calling his

name. It was odd that he could see them, if he was underwater. And he could hear them so clearly, too, Bleier telling him to stand up and walk ashore, the water wasn't deep at all, and Rodrigues saying to come in on hands and knees if he couldn't manage to get up, and Ybarra yelling that it was getting late, that they couldn't wait all the goddamned afternoon, that he had been swimming long enough. McCulloch wondered why they didn't come after him, if they were so eager to get him to shore. Obviously he was unable to help himself.

"Look," he said, "I'm drowning, can't you see? Throw me a line, for Christ's sake!" Water rushed into his mouth as he spoke. It filled his lungs, it pressed against his brain.

"We can't hear you, Jim!"

"Throw me a line!" he cried again, and felt the torrents pouring through his body. "I'm — drowning — drowning —"

And then he realized that he did not at all want them to rescue him, that it was worse to be rescued than to drown. He did not understand why he felt that way, but he made no attempt to question the feeling. All that concerned him now was preventing those people on the shore, those humans, from seizing him and taking him from the water. They were rushing about, assembling some kind of machine to pull him in, an arm at the end of a great boom. McCulloch signalled to them to leave him alone.

"I'm okay," he called. "I'm not drowning after all! I'm fine right where I am!"

But now they had their machine in operation, and its long metal arm was reaching out over the water toward him. He turned and dived, and swam as hard as he could away from the shore, but it was no use: the boom seemed to extend over an infinite distance, and no matter how fast he swam the boom moved faster, so that it hovered just above him now, and from its tip some sort of hook was descending —

"No — no — let me be! I don't want to go ashore!"

Then he felt a hand on his wrist: firm, reassuring, taking control. All right, he thought. They've caught me after all, they're going to pull me in. There's nothing I can do about it. They have me, and that's all there is to it. But he realized, after a moment, that he was heading not toward shore but out to sea, beyond the waves, into the calm warm depths. And the hand that was on his wrist was not a hand; it was a tentacle, thick as heavy cable, a strong sturdy tentacle lined on one side by rounded suction cups that held him in an unbreakable grip.

That was all right. Anything to be away from that wild crashing surf. It was much more peaceful out here. He could rest, catch his breath, get his equilibrium. And all the while that powerful tentacle towed him steadily seaward. He could still hear the voices of his friends on shore, but they were as faint as the cries of distant sea-birds now, and when he looked back he saw only tiny dots, like excited ants, moving along the beach.

McCulloch waved at them. "See you some other time," he called. "I didn't want to come out of the water yet anyway." Better here. Much much better. Peaceful. Warm. Like the womb. And that tentacle around his wrist: So reassuring, so steady.

— *Friend human McCulloch? Friend human McCulloch?*

— *This is where I belong. Isn't it?*

— *Yes. This is where you belong. You are one of us, friend human McCulloch. You are one of us.*

Gradually the turbulence subsided, and he found himself regaining his balance. He was still within the lobster; the whole horde of lobsters was gathered around him, thousands upon thousands of them, a gentle solicitous community; and right in front of him was the largest octopus imaginable, a creature that must have been fifteen or twenty feet in diameter, with tentacles that extended an implausible distance on all sides. Somehow he did not find the sight frightening.

"He is recovered now," his host announced.

— *What happened to me?* McCulloch asked.

— *Your people called you again. But you did not want to make your homefaring, and you resisted them. And when we understood that you wanted to remain, the god aided you, and you broke free of their pull.*

— *The god?*

His host indicated the great octopus.

— *There.*

It did not seem at all improbable to McCulloch now. The infinite fullness of time brings about everything, he thought: even intelligent lobsters, even a divine octopus. He still could feel the mighty telepathic output of the vast creature, but though it had lost none of its power it no longer caused him discomfort; it was like the roaring thunder of some great waterfall, to which one becomes accustomed, and which, in time, one begins to love. The octopus sat motionless, its immense yellow eyes trained on McCulloch, its scarlet mantle rippling gently, its tentacles weaving in intricate patterns. McCulloch thought of an octopus he had once seen when he was diving in the West Indies: a small shy scuttling thing, hurrying to slither behind a gnarled coral head. He felt chastened and awed by this evidence of the magnifications wrought by the eons. A hundred million years? Half a billion? The numbers were without meaning. But that span of years had produced this creature. He sensed a serene intelligence of incomprehensible depth, benign, tranquil, all-penetrating: a god indeed. Yes. Truly a god. Why not?

The great cephalopod was partly sheltered by an overhanging wall of rock. Clustered about it were dozens of the scorpion-things, motionless, poised: plainly a guard force. Overhead swam a whole army of the big squids, doubtless guardians also, and for once the presence of those

creatures did not trigger any emotion in the lobsters, as if they regarded squids in the service of the god as acceptable ones. The scene left McCulloch dazed with awe. He had never felt farther from home.

— *The god would speak with you*, said his host.

— *What shall I say?*

— *Listen, first.*

McCulloch's lobster moved forward until it stood virtually beneath the octopus's huge beak. From the octopus, then, came an outpouring of words that McCulloch did not immediately comprehend, but which, after a moment, he understood to be some kind of benediction that enfolded his soul like a warm blanket. And gradually he perceived that he was being spoken to.

"Can you tell us why you have come all this way, human McCulloch?"

"It was an error. They didn't mean to send me so far — only a hundred years or less, that was all we were trying to cross. But it was our first attempt. We didn't really know what we were doing. And I suppose I wound up halfway across time — a hundred million years, two hundred, maybe a billion — who knows?"

"It is a great distance. Do you feel no fear?"

"At the beginning I did. But not any longer. This world is alien to me, but not frightening."

"Do you prefer it to your own?"

"I don't understand," McCulloch said.

"Your people summoned you. You refused to go. You appealed to us for aid, and we aided you in resisting your homecalling, because it was what you seemed to require from us."

"I'm — not ready to go home yet," he said. "There's so much I haven't seen yet, and that I want to see. I want to see everything. I'll never have an opportunity like this again. Perhaps no one ever will. Besides, I have services to perform here. I'm the herald; I bring the Omen; I'm part of this pilgrimage. I think I ought to stay until the rites have been performed. I *want* to stay until then."

"Those rites will not be performed," said the octopus quietly.

"Not performed?"

"You are not the herald. You carry no Omen. The Time is not at hand."

McCulloch did not know what to reply. Confusion swirled within him. No Omen? Not the Time?

— *It is so*, said the host. *We were in error. The god has shown us that we came to our conclusion too quickly. The Time of the Molting may be near, but it is not yet upon us. You have many of the outer signs of a herald, but there is no Omen upon you. You are merely a visitor. An accident.*

McCulloch was assailed by a startlingly keen pang of disappointment. It was absurd; but for a time he had been the central figure in some

apocalyptic ritual of immense significance, or at least had been thought to be, and all that suddenly was gone from him, and he felt strangely diminished, irrelevant, bereft of his bewildering grandeur. A visitor. An accident.

— *In that case I feel great shame and sorrow*, he said. *To have caused so much trouble for you. To have sent you off on this pointless pilgrimage.*

— *No blame attaches to you*, said the host. *We acted of our free choice, after considering the evidence.*

“Nor was the pilgrimage pointless,” the octopus declared. “There are no pointless pilgrimages. And this one will continue.”

“But if there’s no Omen — if this is not the Time —”

“There are other needs to consider,” replied the octopus, “and other observances to carry out. We must visit the dry place ourselves, from time to time, so that we may prepare ourselves for the world that is to succeed ours, for it will be very different from ours. It is time now for such a visit, and well past time. And also we must bring you to the dry place, for only there can we properly make you one of us.”

“I don’t understand,” said McCulloch.

“You have asked to stay among us; and if you stay, you must become one of us, for your sake, and for ours. And that can best be done at the dry place. It is not necessary that you understand that now, human McCulloch.”

— *Make no further reply*, said McCulloch’s host. *The god has spoken. We must proceed.*

Shortly the lobsters resumed their march, chanting as before, though in a more subdued way, and, so it seemed to McCulloch, singing a different melody. From the context of his conversation with it, McCulloch had supposed that the octopus now would accompany them, which puzzled him, for the huge unwieldy creature did not seem capable of any extensive journey. That proved to be the case: the octopus did not go along, though the vast booming resonances of its mental output followed the procession for what must have been hundreds of miles.

Once more the line was a single one, with McCulloch’s host at the end of the file. A short while after departure it said:

— *I am glad, friend human McCulloch, that you chose to continue with us. I would be sorry to lose you now.*

— *Do you mean that? Isn’t it an inconvenience for you, to carry me around inside your mind?*

— *I have grown quite accustomed to it. You are part of me, friend human McCulloch. We are part of one another. At the place of the dry land we will celebrate our sharing of this body.*

— *I was lucky*, said McCulloch, *to have landed like this in a mind that would make me welcome.*

— *Any of us would have made you welcome*, responded the host.

McCulloch pondered that. Was it merely a courteous turn of phrase, or did the lobster mean him to take the answer literally? Most likely the latter: the host's words seemed always to have only a single level of meaning, a straightforwardly literal one. So any of the lobsters would have taken him in uncomplainingly? Perhaps so. They appeared to be virtually interchangeable beings, without distinctive individual personalities, without names, even. The host had remained silent when McCulloch had asked him its name, and had not seemed to understand what kind of a label McCulloch's own name was. So powerful was their sense of community, then, that they must have little sense of private identity. He had never cared much for that sort of hive-mentality, where he had observed it in human society. But here it seemed not only appropriate but admirable.

— *How much longer will it be*, McCulloch asked, *before we reach the place of dry land?*

— *Long.*

— *Can you tell me where it is?*

— *It is in the place where the world grows narrower*, said the host.

McCulloch had realized, the moment he asked the question, that it was meaningless: what useful answer could the lobster possibly give? The old continents were gone and their names long forgotten. But the answer he had received was meaningless too: where, on a round planet, is the place where the world grows narrower? He wondered what sort of geography the lobsters understood. If I live among them a hundred years, he thought, I will probably just begin to comprehend what their perceptions are like.

*Where the world grows narrower.* All right. Possibly the place of the dry land was some surviving outcropping of the former world, the summit of Mount Everest, perhaps, Kilimanjaro, whatever. Or perhaps not: perhaps even those peaks had been ground down by time, and new ones had arisen — one of them, at least, tall enough to rise above the universal expanse of sea. It was folly to suppose that any shred at all of his world remained accessible: it was all down there beneath tons of water and millions of years of sediments, the old continents buried, hidden, rearranged by time like pieces scattered about a board.

The pulsations of the octopus's mind could no longer be felt. As the lobsters went tirelessly onward, moving always in that lithe skipping stride of theirs and never halting to rest or to feed, the terrain rose for a time and then began to dip again, slightly at first and then more than slightly. They entered into waters that were deeper and significantly darker, and somewhat cooler as well. In this somber zone, where vision seemed all but useless, the pilgrims grew silent for long spells for the first time, neither chanting nor speaking to one another, and McCulloch's host, who had

become increasingly quiet, disappeared once more into its impenetrable inner domain and rarely emerged.

In the gloom and darkness there began to appear a strange red glow off to the left, as though someone had left a lantern hanging midway between the ocean floor and the surface of the sea. The lobsters, when that mysterious light came into view, at once changed the direction of their line of march to go veering off to the right; but at the same time they resumed their chanting, and kept one eye trained on the glowing place as they walked.

The water felt warmer here. A zone of unusual heat was spreading outward from the glow. And the taste of the water, and what McCulloch persisted in thinking of as its smell, were peculiar, with a harsh choking salty flavor. Brimstone? Ashes?

McCulloch realized that what he was seeing was an undersea volcano, belching forth a stream of red-hot lava that was turning the sea into a boiling bubbling cauldron. The sight stirred him oddly. He felt that he was looking into the pulsing ancient core of the world, the primordial flame, the geological link that bound the otherwise vanished former worlds to this one. There awakened in him a powerful tide of awe, and a baffling unfocused yearning that he might have termed homesickness, except that it was not, for he was no longer sure where his true home lay.

— *Yes, said the host. It is a mountain on fire. We think it is a part of the older of the two former worlds that has endured both of the Moltings. It is a very sacred place.*

— *An object of pilgrimage?* McCulloch asked.

— *Only to those who wish to end their lives. The fire devours all who approach it.*

— *In my world we had many such fiery mountains,* McCulloch said. *They often did great destruction.*

— *How strange your world must have been!*

— *It was very beautiful,* said McCulloch.

— *Surely. But strange. The dry land, the fire in the air — the sun, I mean — the air-breathing creatures — yes, strange, very strange. I can scarcely believe it really existed.*

— *There are times, now, when I begin to feel the same way,* McCulloch said.

The volcano receded in the distance; its warmth could no longer be felt; the water was dark again, and cold, and growing colder, and McCulloch could no longer detect any trace of that sulphurous aroma. It seemed to him that they were moving now down an endless incline, where scarcely any creatures dwelled.

And then he realized that the marchers ahead had halted, and were drawn up in a long row as they had been when they came to the place

where the octopus held its court. Another god? No. There was only blackness ahead.

— *Where are we?* he asked.

— *It is the shore of the great abyss.*

Indeed what lay before them looked like the Pit itself: lightless, without landmark, an empty landscape. McCulloch understood now that they had been marching all this while across some sunken continent's coastal plain, and at last they had come to — what? — the graveyard where one of Earth's lost oceans lay buried in ocean?

— *Is it possible to continue?* he asked.

— *Of course, said the host. But now we must swim.*

Already the lobsters before them were kicking off from shore with vigorous strokes of their tails and vanishing into the open sea beyond. A moment later McCulloch's host joined them. Almost at once there was no sense of a bottom beneath them — only a dark and infinitely deep void. Swimming across this, McCulloch thought, is like falling through time — an endless descent and no safety net.

The lobsters, he knew, were not true swimming creatures: like the lobsters of his own era they were bottom-dwellers, who walked to get where they needed to go. But they could never cross this abyss that way, and so they were swimming now, moving steadily by flexing their huge abdominal muscles and their tails. Was it terrifying to them to be setting forth into a place without landmarks like this? His host remained utterly calm, as though this were no more than an afternoon stroll.

McCulloch lost what little perception of the passage of time that he had had. Heave, stroke, onward, heave, stroke, onward, that was all, endless repetition. Out of the depths there occasionally came an upwelling of cold water, like a dull, heavy river miraculously flowing upward through air, and in that strange surging from below rose a fountain of nourishment, tiny transparent struggling creatures and even smaller flecks of some substance that must have been edible, for the lobsters, without missing a stroke, sucked in all they could hold. And swam on and on. McCulloch had a sense of being involved in a trek of epic magnitude, a once-in-many generations thing that would be legendary long after.

Enemies roved this open sea: the free-swimming creatures that had evolved out of God only knew which kinds of worms or slugs to become the contemporary equivalents of sharks and whales. Now and again one of these huge beasts dived through the horde of lobsters, harvesting it at will. But they could eat only so much; and the survivors kept going onward.

Until at last — months, years later? — the far shore came into view; the ocean floor, long invisible, reared up beneath them and afforded support; the swimmers at last put their legs down on the solid bottom, and with something that sounded much like gratitude in their voices began once

again to chant in unison as they ascended the rising flank of a new continent.

The first rays of the sun, when they came into view an unknown span of time later, struck McCulloch with an astonishing, overwhelming impact. He perceived them first as a pale greenish glow resting in the upper levels of the sea just ahead, striking downward like illuminated wands; he did not then know what he was seeing, but the sight engendered wonder in him all the same; and later, when that radiance diminished and was gone and in a short while returned, he understood that the pilgrims were coming up out of the sea. So they had reached their goal: the still point of the turning world, the one remaining unsubmerged scrap of the former Earth.

— Yes, said the host. *This is it.*

In that same instant McCulloch felt another tug from the past: a summons dizzying in its imperative impact. He thought he could hear Maggie Caldwell's voice crying across the time-winds: "Jim, Jim, come back to us!" And Bleier, grouchy, angered, muttering, "For Christ's sake, McCulloch, stop holding on up there! This is getting expensive!" Was it all his imagination, that fantasy of hands on his wrists, familiar faces hovering before his eyes?

"Leave me alone," he said. "I'm still not ready."

"Will you ever be?" That was Maggie. "Jim, you'll be marooned. You'll be stranded there if you don't let us pull you back now."

"I may be marooned already," he said, and brushed the voices out of his mind with surprising ease.

He returned his attention to his companions and saw that they had halted their trek a little way short of that zone of light which now was but a quick scramble ahead of them. Their linear formation was broken once again. Some of the lobsters, marching blindly forward, were piling up in confused-looking heaps in the shallows, forming mounds fifteen or twenty lobsters deep. Many of the others had begun a bizarre convulsive dance: a wild twitchy cavorting, rearing up on their back legs, waving their claws about, flicking their antennae in frantic circles.

— *What's happening?* McCulloch asked his host. *Is this the beginning of a rite?*

But the host did not reply. The host did not appear to be within their shared body at all. McCulloch felt a silence far deeper than the host's earlier withdrawals; this seemed not a withdrawal but an evacuation, leaving McCulloch in sole possession. That new solitude came rolling in upon him with a crushing force. He sent forth a tentative probe, found nothing, found less than nothing. Perhaps it's meant to be this way, he thought. Perhaps it was necessary for him to face this climactic initiation unaided, unaccompanied.

Then he noticed that what he had taken to be a weird jerky dance was actually the onset of a mass molting prodrome. Hundreds of the lobsters had been stricken simultaneously, he realized, with that strange painful sense of inner expansion, of volcanic upheaval and stress: that heaving and rearing about was the first stage of the splitting of the shell.

And all of the molters were females.

Until that instant McCulloch had not been aware of any division into sexes among the lobsters. He had barely been able to tell one from the next; they had no individual character, no shred of uniqueness. Now, suddenly, strangely, he knew without being told that half of his companions were females, and that they were molting now because they were fertile only when they had shed their old armor, and that the pilgrimage to the place of the dry land was the appropriate time to engender the young. He had asked no questions of anyone to learn that; the knowledge was simply within him; and, reflecting on that, he saw that the host was absent from him because the host was wholly fused with him; he was the host, the host was Jim McCulloch.

He approached a female, knowing precisely which one was the appropriate one, and sang to her, and she acknowledged his song with a song of her own, and raised her third pair of legs to him, and let him plant his gametes beside her oviducts. There was no apparent pleasure in it, as he remembered pleasure from his days as a human. Yet it brought him a subtle but unmistakable sense of fulfillment, of the completion of biological destiny, that had a kind of orgasmic finality about it, and left him calm and anchored at the absolute dead center of his soul: yes, truly the still point of the turning world, he thought.

His mate moved away to begin her new Growing and the awaiting of her motherhood. And McCulloch, unbidden, began to ascend the slope that led to the land.

The bottom was fine sand here, soft, elegant. He barely touched it with his legs as he raced shoreward. Before him lay a world of light, radiant, heavenly, a bright irresistible beacon. He went on until the water, pearly-pink and transparent, was only a foot or two deep, and the domed upper curve of his back was reaching into the air. He felt no fear. There was no danger in this. Serenely he went forward — the leader, now, of the trek — and climbed out into the hot sunlight.

It was an island, low and sandy, so small that he imagined he could cross it in a day. The sky was intensely blue and the sun, hanging close to a noon position, looked swollen and fiery. A little grove of palm trees clustered a few hundred yards inland, but he saw nothing else, no birds, no insects, no animal life of any sort. Walking was difficult here — his breath was short, his shell seemed to be too tight, his stalked eyes were stinging in the air — but he pulled himself forward, almost to the trees. Other male lobsters, hundreds of them, thousands of them, were follow-

ing. He felt himself linked to each of them: his people, his nation, his community, his brothers.

Now, at that moment of completion and communion, came one more call from the past.

There was no turbulence in it this time. No one was yanking at his wrists, no surf boiled and heaved in his mind and threatened to dash him on the reefs of the soul. The call was simple and clear: *This is the moment of coming back, Jim.*

Was it? Had he no choice? He belonged here. These were his people. This was where his loyalties lay.

And yet, and yet: he knew that he had been sent on a mission unique in human history, that he had been granted a vision beyond all dreams, that it was his duty to return and report on it. There was no ambiguity about that. He owed it to Bleier and Maggie and Ybarra and the rest to return, to tell them everything.

How clear it all was! He belonged *here*, and he belonged *there*, and an unbreakable net of loyalties and responsibilities held him to both places. It was a perfect equilibrium; and therefore he was tranquil and at ease. The pull was on him; he resisted nothing, for he was at last beyond all resistance to anything. The immense sun was a drumbeat in the heavens; the fiery warmth was a benediction; he had never known such peace.

"I must make my home-faring now," he said, and released himself, and let himself drift upward, light as a bubble, toward the sun.

Strange figures surrounded him, tall and narrow-bodied, with odd fleshy faces and huge moist mouths and bulging staring eyes, and their kind of speech was a crude hubbub of sound-waves that bashed and battered against his sensibilities with painful intensity. "We were afraid the signal wasn't reaching you, Jim," they said. "We tried again and again, but there was no contact, nothing. And then just as we were giving up, suddenly your eyes were opening, you were stirring, you stretched your arms —"

He felt air pouring into his body, and dryness all about him. It was a struggle to understand the speech of these creatures who were bending over him, and he hated the reek that came from their flesh and the booming vibrations that they made with their mouths. But gradually he found himself returning to himself, like one who has been lost in a dream so profound that it eclipses reality for the first few moments of wakefulness.

"How long was I gone?" he asked.

"Four minutes and eighteen seconds," Ybarra said.

McCulloch shook his head. "Four minutes? Eighteen seconds? It was more like forty months, to me. Longer. I don't know how long."

"Where did you go, Jim? What was it like?"

"Wait," someone else said. "He's not ready for debriefing yet. Can't you see, he's about to collapse?"

McCulloch shrugged. "You sent me too far."

"How far? Five hundred years?" Maggie asked.

"Millions," he said.

Someone gasped.

"He's dazed," a voice said at his left ear.

"Millions of years," McCulloch said in a slow, steady, determinedly articulate voice. "*Millions*. The whole earth was covered by the sea, except for one little island. The people are lobsters. They have a society, a culture. They worship a giant octopus."

Maggie was crying. "Jim, oh, Jim —"

"No. It's true. I went on migration with them. Intelligent lobsters is what they are. And I wanted to stay with them forever. I felt you pulling at me, but I — didn't — want — to — go —"

"Give him a sedative, Doc," Bleier said.

"You think I'm crazy? You think I'm deranged? They were lobsters, fellows. *Lobsters*."

After he had slept and showered and changed his clothes they came to see him again, and by that time he realized that he must have been behaving like a lunatic in the first moments of his return, blurting out his words, weeping, carrying on, crying out what surely had sounded like gibberish to them. Now he was rested, he was calm, he was at home in his own body once again.

He told them all that had befallen him, and from their faces he saw at first that they still thought he had gone around the bend: but as he kept speaking, quietly, straightforwardly, in rich detail, they began to acknowledge his report in subtle little ways, asking questions about the geography, about the ecological balance in a manner that showed him they were not simply humoring him. And after that, as it sank in upon them that he really had dwelled for a period of many months at the far end of time, beyond the span of the present world, they came to look upon him — it was unmistakable — as someone who was now wholly unlike them. In particular he saw the cold glassy stare in Maggie Caldwell's eyes.

Then they left him, for he was tiring again; and later Maggie came to see him alone, and took his hand and held it between hers, which were cold.

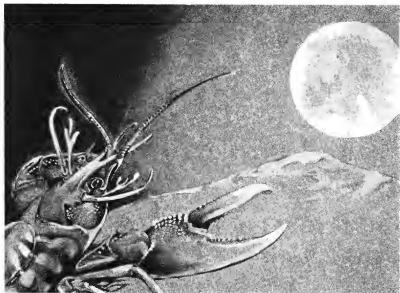
She said, "What do you want to do now, Jim?"

"To go back there."

"I thought you did."

"It's impossible, isn't it?" he said.

"We could try. But it couldn't ever work. We don't know what we're doing, yet, with that machine. We don't know where we'd send you. We



might miss by a million years. By a billion.”

“That’s what I figured too.”

“But you want to go back?”

He nodded. “I can’t explain it. It was like being a member of some Buddhist monastery, do you see? Feeling *absolutely sure* that this is where you belong, that everything fits together perfectly, that you’re an integral part of it. I’ve never felt anything like that before. I never will again.”

“I’ll talk to Bleier, Jim, about sending you back.”


“No. Don’t. I can’t possibly get there. And I don’t want to land anywhere else. Let Ybarra take the next trip. I’ll stay here.”

“Will you be happy?”

He smiled. “I’ll do my best,” he said.

When the others understood what the problem was, they saw to it that he went into re-entry therapy — Bleier had already foreseen something like that, and made preparations for it — and after a while the pain went from him, that sense of having undergone a violent separation, of having been ripped untimely from the womb. He resumed his work in the group and gradually recovered his mental balance and took an active part in the second transmission, which sent a young anthropologist named Ludwig off for two minutes and eight seconds. Ludwig did not see lobsters, to McCulloch’s intense disappointment. He went sixty years into the future and came back glowing with wondrous tales of atomic fusion plants.

That was too bad, McCulloch thought. But soon he decided that it was just as well, that he preferred being the only one who had encountered the world beyond this world, probably the only human being who ever would.

He thought of that world with love, wondering about his mate and her millions of larvae, about the journey of his friends back across the great abyss, about the legends that were being spun about his visit in that unimaginably distant epoch. Sometimes the pain of separation returned, and Maggie found him crying in the night, and held him until he was whole again. And eventually the pain did not return. But still he did not forget, and in some part of his soul he longed to make his homeward back to his true kind, and he rarely passed a day when he did not think he could hear the inaudible sound of delicate claws, scurrying over the sands of silent seas. 



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